



**11th Annual Conference of the
EuroMed Academy of Business**

**Research Advancements in National and Global Business
Theory and Practice**

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

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FOREWORD

The Annual Conference of the EuroMed Academy of Business aims to provide a unique international forum to facilitate the exchange of cutting-edge information through multidisciplinary presentations on examining and building new theory and business models for success through management innovation.

It is acknowledged that the conference has established itself as one of the major conferences of its kind in the EuroMed region, in terms of size, quality of content, and standing of attendees. Many of the papers presented contribute significantly to the business knowledge base.

The conference attracts hundreds of leading scholars from leading universities and principal executives and politicians from all over the world with the participation or intervention of Presidents, Prime Ministers, Ministers, Company CEOs, Presidents of Chambers, and other leading figures.

This year the conference attracted about 200 people from over 35 different countries. Academics, practitioners, researchers and Doctoral students throughout the world submitted original papers for conference presentation and for publication in this Book. All papers and abstracts were double blind reviewed. The result of these efforts produced empirical, conceptual and methodological papers and abstracts involving all functional areas of business.

ACKNOWLEDGEMENT

Many people and organizations are responsible for the successful outcome of the 10th Annual Conference of the EuroMed Academy of Business. Special thanks go to the Conference Co-Chairs Prof. Vincent Cassar and Prof. Frank Bezzina and the University of Malta, for accomplishing an excellent job.

It is acknowledged that 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 and presented their work at the conference. Their valuable research has highly contributed to the continuous success of the conference.

TABLE OF PAPERS

EFFICIENCY IN ITALIAN SAVING BANKS: IS UNITY THE STRENGTH?	29
<i>Alfiero, Simona¹; Elba, Filippo²; Esposito, Alfredo¹; Resce, Giuliano³.....</i>	<i>29</i>
CHILDHOOD MEMORIES, EXPERIENCES AND EMOTIONS: CONTENT ANALYSIS OF CELEBRITY TRAVEL NARRATIVES	36
<i>Alves, Gisela¹; Azevedo, António²</i>	<i>36</i>
THE INTEGRATIVE MODEL OF ONLINE RELATIONSHIP QUALITY	48
<i>Alves, Gisela¹; Machado, Ana¹; Veréb, Vanda².....</i>	<i>48</i>
SILOS MENTALITY IN HEALTHCARE SERVICES	65
<i>Alves, João¹; Meneses, Raquel²</i>	<i>65</i>
THE DOMINANT LEADERSHIP STYLES AND THEIR EFFECTIVE BEHAVIORS ON EMPLOYEES' PERFORMANCE IN THE MIDDLE EAST (THE CASE OF IRANIAN ORGANIZATIONS).....	80
<i>Asadi, Rahil.....</i>	<i>80</i>
SOCIAL MEDIA AND MARKETING STRATEGY IN EDUCATIONAL SERVICES	89
<i>Athanasopoulou, Pinelopi¹; Giovanis N., Apostolos²</i>	<i>89</i>
METHODOLOGICAL ISSUES IN PATIENT SATISFACTION ASSESSMENT: SOME RECOMMENDATIONS.....	97
<i>Azevedo, António</i>	<i>97</i>
THE FUTURE OF THE GREEK BANKS THROUGH THE CHALLENGES OF AN AGEING POPULATION, IMMIGRATION AND TECHNOLOGICAL TRANSITION	105
<i>Balomenou, Chrysanthi K.¹; Liakos, Antonios D.²; Lagos, Dimitrios³</i>	<i>105</i>
ENGAGING LEADERSHIP AND WORK ENGAGEMENT IN PUBLIC SERVANTS: THE INDIRECT ROLE OF JOB-RELATED AFFECT.....	126
<i>Basinska, Beata Aleksandra^{1,2}; Gruszczynska, Ewa²; Schaufeli, Wilmar³</i>	<i>126</i>
HOW SOCIAL MEDIA AFFECT BRAND REPUTATION OF A DESTINATION: AN EXPLORATORY CASE STUDY.....	138
<i>Ben Youssef, Kamel¹; Viassone, Milena²; Leroux, Erick³.....</i>	<i>138</i>
IDENTIFICATION OF THE BEHAVIOURAL PATTERNS VIA COGNITIVE REFLECTION TEST ..	153
<i>Benda Prokeinova, Renata¹; Hanova, Martina¹; Paluchova, Johana².....</i>	<i>153</i>

A PLANNING AND CONTROL SYSTEM BASED ON SOCIAL WELFARE INDICATORS USEFUL WAY TO GUIDE THE GOVERNANCE FOR SUSTAINABLE HEALTHCARE MOBILITY	167
<i>Biancone, Pietro Paolo; Secinaro, Silvana; Brescia, Valerio</i>	167
GREEN MARKETING COMMUNICATIONS IN THE FUNCTION OF SUSTAINABLE DEVELOPMENT	185
<i>Bratić, Diana¹; Palić, Mirko²; Tomašević Lišanin, Marija¹; Gajdek, Dea¹</i>	185
STATUS QUO OF THE ACCEPTANCE OF THE SHARING ECONOMY IN GERMANY	199
<i>Bremser, Kerstin¹; Alonso-Almeida, Maria del Mar²</i>	199
THE IMPACT OF CONSUMER ETHNOCENTRISM ON ATHLETE ENDORSER EFFECTIVENESS – A CROSS-CULTURAL STUDY ON SOURCE CREDIBILITY	207
<i>Bremser, Kerstin¹; Wendenburg Jana²; Goehlich, Véronique¹</i>	207
GREEN CONTROLLING IN SME: FINDINGS OF AN EMPIRICAL STUDY IN BADEN-WÜRTTEMBERG	227
<i>Britzelmaier, Bernd; Rommel, Pascal; Schlosser, Jana Maria; Weidler, Carolin</i>	227
CHINESE FOREIGN DIRECT INVESTMENTS IN GERMANY: FINDINGS OF AN EMPIRICAL STUDY	236
<i>Britzelmaier, Bernd; Armbruster, Joscha; Podolnyi, Nikita; Wiesner, Daniel</i>	236
THE PURSUIT OF THE COMPETITIVE DIMENSION OF CREDIT COOPERATIVE BANKS	244
<i>Bruno, Elena¹; Cavallini, Iacopo¹; Iacoviello, Giuseppina¹; Lazzini, Arianna²</i>	244
ENTREPRENEURSHIP AND THE CITIES IN A KNOWLEDGE-BASED PERSPECTIVE: EVIDENCE FROM THE EU	259
<i>Bruzzi, Carolina¹; Ivaldi, Enrico²; Musso, Enrico³; Penco, Lara³</i>	259
M&A: AN EMPIRICAL ANALYSIS OF VALUE CREATION AMONG EUROPEAN COUNTRIES .	278
<i>Buchi, Giacomo¹; Iodice, Alberto¹; Bresciani, Stefano¹; Micciché, Edoardo²; Santoro, Gabriele¹</i>	278
APPLICATION OF NEURO-MARKETING TECHNIQUES TO THE WINE TASTING EXPERIENCE	299
<i>Caratù, Myriam¹; Cherubino, Patrizia²; Mattiacci, Alberto¹</i>	299
FACTORS AFFECTING INNOVATION PERFORMANCE	308
<i>Chatzoglou, Prodromos; Polyzogopoulou, Zoi; Chatzoudes, Dimitrios</i>	308

CODE, ETHICS AND CROSS-CULTURAL DIFFERENCES: CHALLENGES OF AMERICAN'S MNC IMPLEMENTING OF CODE OF ETHICS IN SINGAPORE SUBSIDIARY	321
<i>Chew, Grace</i>	321
DRIVING AUDIT COMMITTEE DISCLOSURE - LEGISLATION <i>VERSUS</i> BEST PRACTICE	341
<i>Coetzee, Philna¹; Erasmus, Lourens J.²</i>	341
CORPORATE VALUATION OF SAAS COMPANIES: A CASE STUDY OF SALESFORCE.COM.....	357
<i>Cohen, Benjamin; Neubert, Michael</i>	357
DIFFERENT METHODS TO ESTIMATING THE COST OF EQUITY.AN ANALYSIS ON A SAMPLE OF TOO BIG TO FAIL BANKS.....	372
<i>Coluccia, Daniela; Fontana, Stefano; Solimene, Silvia</i>	372
EMERGENCE AND EVOLUTION OF AN ENTREPRENEURIAL ECOSYSTEM: THE CASE OF PORTO.....	387
<i>Corbo, Leonardo¹; Almeida, João²</i>	387
A LEADERSHIP COMMUNICATION VALUE CHAIN MODEL	397
<i>Mulder, Dalmé; De Lange, Lucrezia</i>	397
MENTORING, BUSINESS CASE COMPETITOR DEVELOPMENT AND REVERSE MENTORING AT GLOBAL BUSINESS CASE STUDY COMPETITIONS.....	412
<i>Damnjanovic, Vesna¹; Proud, William²; Milosavljevic, Milos¹</i>	412
KNOWLEDGE-INTENSIVE ENTREPRENEURSHIP AND BIG DATA: IMPLICATIONS FOR SMART TOURISM DESTINATIONS	440
<i>Del Vecchio, Pasquale; Mele, Gioconda; Ndou, Valentina; Passiante, Giuseppina; Giustina Secundo</i>	440
THEORETICAL MODEL: PERFORMANCE OF NEW TECHNOLOGICAL PRODUCTS	454
<i>Duarte, Tânia; Alves, Gisela</i>	454
HOW LOCALISATION AFFECTS FIRM PRODUCTIVITY IN TURKEY?	465
<i>Ferragina, Anna M.¹; Nunziante, Giulia²; Taymaz, Erol³</i>	465
EMPLOYER BRAND BUILDING FROM THE INSIDE-OUT: HOW EMPLOYER VALUES CONTRIBUTE TO EMPLOYEE ENGAGEMENT	491
<i>Ferreira, Pedro</i>	491
PUBLIC-PRIVATE COOPERATION IN WINE TOURISM - A TERRITORIAL MODEL FOR SMALL MUNICIPALITIES IN ITALY.....	507

<i>Festa, Giuseppe¹; Cuomo, Maria Teresa¹; Metallo, Gerardino¹; Benvenuti, Paolo².....</i>	<i>507</i>
TERRITORIAL CAPITALISM AND GLOBAL COMPETITION: THE 'MADE IN ITALY' CHALLENGE FOR SMES	517
<i>Festa, Giuseppe¹; Rossi, Matteo²; Martini, Elvira²; Abbate, Tindara³.....</i>	<i>517</i>
WAYS TO INCREASE THE EUROPEAN FUNDS ABSORPTION AND CONTRIBUTION TO A SMART, SUSTAINABLE AND INCLUSIVE ECONOMY. THE CASE OF ROMANIA	534
<i>Gabroeanu Vladoi, Janina Mirela</i>	<i>534</i>
IRRADIATED FOODS BETWEEN CONCERN AND ACCEPTANCE IN THE ITALIAN MARKET .	542
<i>Galati, Antonino¹; Moavero, Pietro²; Crescimanno, Maria¹</i>	<i>542</i>
SIMULATION OF ALTERNATIVE SCENARIOS IN PORTUGUESE WINE SECTOR: AN AGENT-BASED MODEL APPROACH.....	553
<i>Galindro, Aníbal¹; Marta-Costa, Ana¹; Santos, Cátia¹; Matias, João²; Cerveira, Adelaide³.....</i>	<i>553</i>
INNOVATION AND TRADITION IN THE WINE BUSINESS: AN ENQUIRY INTO FAMILY BUSINESSES' APPROACH TO THE DILEMMA.....	568
<i>Giacosa, Elisa; Stupino, Margherita.....</i>	<i>568</i>
FUNDS OF HEDGE FUNDS' PORTFOLIO CONSTRUCTION AND THE ROLE OF CYPRIOT MARKET IN A EUROPEAN DIVERSIFIED PORTFOLIO	579
<i>Gibilaro, Lucia¹; Mattarocci, Gianluca²; Mihai- Yiannaki, Simona³.....</i>	<i>579</i>
CHINESE INNOVATION AND GLOBAL INTEGRATION - THEORETICAL FRAMEWORK OF PERCEIVED INSECURITIES IN UNIVERSITY TECHNOLOGY TRANSFER	591
<i>Hamilton, Clovia Ann.....</i>	<i>591</i>
BLACK AMERICANS PAST AND PRESENT CREATED FRUGAL INNOVATIONS AND EMBRACED CIRCULAR ECONOMY PRINCIPLES: THE MARKETING DILEMMA.....	602
<i>Hamilton, Clovia Ann.....</i>	<i>602</i>
A CULTURE OF INNOVATION COULD ALSO TAKE PLACE IN SMALL BUSINESSES - THE ISRAELI EXPERIENCE	613
<i>Harel, Ronen¹; Schwartz, Dafna²; Kaufmann, Dan³</i>	<i>613</i>
NON-STOCHASTIC PREDICTION SPAN AS A PREDICTING TOOL IN ECONOMIC TIME SERIES	628
<i>Hindls, Richard¹; Hronová, Stanislava²; Marek Luboš¹</i>	<i>628</i>

THE INFLUENCE OF CONSUMER ETHNOCENTRISM, CONSUMER ANIMOSITY AND DOMESTIC COUNTRY BIAS IN PRODUCT PREFERENCE.....	640
<i>Hungara, Ana Paula¹; Meneses, Raquel¹; Nobre, Helena²</i>	<i>640</i>
PAIN MANAGEMENT TO IMPROVE THE PATIENTS' PERCEIVED QUALITY OF HEALTH CARE SERVICES: A THEORETICAL FRAMEWORK	648
<i>Iaffaldano, Nicolaia.....</i>	<i>648</i>
HOW ITALIAN AGRIFOOD PRODUCTS COMMUNICATE THEIR AUTHENTICITY? THE BRAND-LAND LINK INVESTIGATED ON THE WEB	659
<i>Iaia, Lea¹; Fait, Monica²; Maizza, Amedeo²; Cavallo, Federica²; Scorrano, Paola²</i>	<i>659</i>
PROFITABILITY DYNAMICS OF TOURISM COMPANIES DURING THE CRISIS PERIOD 2007-2015*	672
<i>Iovino, Felicetta; Migliaccio, Guido</i>	<i>672</i>
SPECIAL ECONOMIC ZONES: AN OVERVIEW.....	687
<i>Iovino, Felicetta; Paolo, Esposito</i>	<i>687</i>
SPECIAL ECONOMIC ZONES: A BRIEF COMPARATIVE EXCURSUS.....	695
<i>Iovino, Felicetta; Paolo, Esposito</i>	<i>695</i>
FROM THE UFZS TO THE SEZS: THE ITALIAN CASE	704
<i>Iovino, Felicetta; Paolo, Esposito</i>	<i>704</i>
A CONCEPTUAL FRAMEWORK AND RESEARCH PROPOSITIONS ON RESOURCE SEEKING CHINESE FIRMS MODE OF MARKET ENTRY IN EMERGING MARKET.....	715
<i>Iwaloye, Ojo Olukayode</i>	<i>715</i>
CIRCULAR BIOECONOMY: DO WE REALLY NEED ANOTHER CONCEPT?.....	733
<i>Karagouni, Glykeria¹; Tsoukatos, Evangelos².....</i>	<i>733</i>
THE NEW LUXURY: INSIGHT FROM SUSTAINABLE BRAZILIAN LUXURY FASHION	747
<i>Kaufmann, Hans Rüdiger¹; Loureiro, Sandra Maria Correia²; Alves, Gisela³; Attila, Isabella⁴.....</i>	<i>747</i>
NETWORKING ABILITIES AND DYNAMIC CAPABILITIES FOR AN "INNOVATOR FIRM" PROFILE IN THE ITALIAN MANUFACTURER INDUSTRY	770
<i>Kaufmann, H. Ruediger¹; Basile, Gianpaolo²; Andreano, M. Simona²; Mazzitelli, Andrea²</i>	<i>770</i>
THE IMPACT OF THE ENVIRONMENTAL DIMENSIONS ON THE ENTREPRENEURIAL DECISION	780

<i>Kchaich Ep Chedli, Mariem</i>	780
CUSTOMER SATISFACTION IN THE HOSPITALITY INDUSTRY	790
<i>Kefalas, Soteris</i>	790
DEVELOPING AN ORGANIZATIONAL CULTURE IN A HOTEL	804
<i>Kefalas, Soteris</i>	804
THE INFLUENCE OF FAMILY INVOLVEMENT ON SMES EMPLOYEES' DOWNSIZING DECISIONS.....	814
<i>Kocollari, Ulpiana; Montanari, Stefano; Di Toma, Paolo</i>	814
STUDY OF SOCIAL ORGANIZATIONAL PROCESSES IN THE CONTEXT OF COMPLEX SYSTEMS	827
<i>Kowalska-Styczeń, Agnieszka</i>	827
THE APPLICATION OF SUSTAINABLE TOURISM INDICATORS: EVIDENCE FROM CROATIA	843
<i>Krce Miočić, Božena; Klarin, Tomislav; Vidić, Gabrijela</i>	843
RELATIONSHIPS BETWEEN INNOVATION MANAGEMENT, TOTAL FACTOR PRODUCTIVITY AND GROWTH: A COMPARATIVE STUDY BETWEEN PAKISTAN AND EUROPEAN UNION ..	857
<i>Lee, Jung Wan; Khan, Mohammad Omer Ali</i>	857
FISCAL VALUE OF DISTANCE-BASED ROAD PRICING SYSTEM PROJECT IN YEKATERINBURG	870
<i>Leontyeva, Yulia¹; Mayburov, Igor^{1,2}</i>	870
BIG DATA IMPLEMENTATION LEVELS IN ORGANIZATIONS: A THEORETICAL PROPOSAL .	877
<i>Maldonado Ascanio, Erik¹; Balbastre-Benavent, Francisco²</i>	877
THE ARCHAEOLOGICAL ZONE IN THE CONSTITUTION FOR THE OCEANS.....	890
<i>Maniatis, Antonios</i>	890
THE EXCLUSIVE ECONOMIC ZONE (EEZ) IN THE CONSTITUTION FOR THE OCEANS	897
<i>Maniatis, Antonios</i>	897
THE AREA OF THE INTERNATIONAL SEABED IN THE CONSTITUTION FOR THE OCEANS ..	904
<i>Maniatis, Antonios</i>	904
THEORETICAL AND PRACTICAL ASPECTS OF THE USE OF ENERGY SERVICE CONTRACTS IN THE WORLD	911
<i>Mareeva, Maria; Shuvalova, Olga; Rodionova, Irina</i>	911

TRAVEL CONSUMER JOURNEY IN THE DIGITAL ERA: THE ROLE OF ENGAGEMENT FOCI ..	920
<i>Marino, Vittoria; D'Arco, Mario</i>	920
VALUE-BASED HEALTH CARE IN PORTUGAL: VISIONS AND REFLECTIONS OF KEY STAKEHOLDERS	933
<i>Marques, Carla¹; Santos, Gina¹; Couto, Ismael²</i>	933
AGE DIFFERENTIATION IN TRANSPORT CHOICES IN INDUSTRIAL URBAN AGGLOMERATION.....	950
<i>Mayburov, Igor^{1,2}; Leontyeva, Yulia¹</i>	950
ECONOMIC AND FINANCIAL BALANCE OF ITALIAN TANNING MANUFACTURERS DURING THE CRISIS (2007-2015)	959
<i>Migliaccio, Guido; Arena, Maria Fulvia</i>	959
BALANCE OF ASSETS OF SOCIAL WELFARE HOME DURING THE CRISIS PERIOD (2007-2015)	975
<i>Migliaccio, Guido¹; Losco, Francesco²</i>	975
AN INVESTIGATION INTO THE IMPORTANCE OF ANALYTICAL COMPETENCIES: A HOSPITALITY INDUSTRY PERSPECTIVE	990
<i>Mottier, Ewa M.; Marshall, Thomas</i>	990
INTERNET AND EXPORT PERFORMANCE: EVIDENCE FROM PORTUGUESE INTERNATIONAL NEW VENTURES	1004
<i>Moutinho, Nuno; Matos, Ana; Meneses, Raquel</i>	1004
SMES PERCEPTIONS ON THE IMPACT OF DIGITALIZATION ON INTERNATIONALIZATION	1019
<i>Neubert, Michael</i>	1019
IMPACT OF BUSINESS INTELLIGENCE ON EXPORT OF SOFTWARE FIRMS IN EMERGING MARKETS	1028
<i>Neubert, Michael¹; Van der Krogt, Augustinus²</i>	1028
HOW TO MOTIVATE SALESFORCE THROUGH THE LAUNCH OF A NEW PRODUCT BY CHOSING A PROPER LOCATION	1038
<i>Pellicelli, Anna Claudia; Procacci, Silvia</i>	1038
USING MASS MEDIA IN ENVIRONMENTAL COMMUNICATION: THE CASE OF EARLY CHILDHOOD EDUCATION	1045

<i>Petkou, Dafni</i>	1045
THE ROLE OF MASS MEDIA IN SHAPING ENVIRONMENTALLY RESPONSIBLE BEHAVIOUR: A PREDICTION MODEL FOR THE INCLUSION OF PRIMARY EDUCATION TEACHERS IN ATTITUDE AND BEHAVIOUR CLUSTERS	1058
<i>Petkou, Dafni</i>	1058
BACHELOR AND MASTER THESES, BIRD OR FISH? WHAT IS A GOOD THESIS? AND WHAT ARE THE DIFFERENCES AND SIMILARITIES BETWEEN THESES AND SCIENTIFIC ARTICLES?	1068
<i>Philipson, Sarah</i>	1068
CONSUMER BEHAVIOUR AND FOOD HABITS: EXPLORING OUT-OF-HOME FOOD WASTE	1083
<i>Principato, Ludovica¹; Secondi, Luca²</i>	1083
MANAGEMENT INCENTIVES IN UNLISTED COMPANIES: AN EMPIRICAL INVESTIGATION	1097
<i>Remondino, Marco¹; Schiesari, Roberto²</i>	1097
INTERNATIONAL DEVELOPMENT ASSISTANCE EFFECTS ON ECONOMIC GROWTH: EVIDENCE FROM FOUR SOUTH EUROPEAN COUNTRIES	1112
<i>Repousis, Spyridon; Lois, Petros</i>	1112
THE MEDIATING ROLE IN THE CUSTOMER SATISFACTION-LOYALTY RELATIONSHIP ON THE RETAIL INDUSTRY	1128
<i>Ribeiro, Humberto¹; Veloso, Cláudia²; Alves, Sandra³; Monte, Paula⁴</i>	1128
RANKING OF COUNTRIES BY INDUSTRIAL GROWTH RATE	1145
<i>Rodionova, Irina¹; Kokuytseva, Tatiana²</i>	1145
PUBLIC-PRIVATE PARTNERSHIPS: PROBLEM OR SOLUTION? FEATURES AND TRENDS IN EU- 28	1160
<i>Rossi, Matteo; Festa, Giuseppe</i>	1160
THRIVING IN MONO- AND MULTICULTURAL WORK ENVIRONMENTS: THE ROLE OF POSITIVE PSYCHOLOGICAL CAPITAL	1172
<i>Rozkwitalska, Malgorzata¹; Basinska, Beata Aleksandra²</i>	1172
IDENTIFYING OPEN INNOVATION SOURCES AND PRACTICES: A SYSTEMATIC LITERATURE REVIEW	1185
<i>Santoro, Gabriele¹; Candelo, Elena¹; Giacosa, Elisa¹; Mazzoleni, Alberto²</i>	1185

THE INFLUENCE OF CSR IN JOB SATISFACTION THROUGH INTERNAL SERVICE QUALITY: AN APPROACH IN THE THIRD SECTOR	1195
<i>Santos, Gina¹; Justino, Elsa²; Marques, Carla¹</i>	<i>1195</i>
I AM A RESPONSIBLE LEADER!	1210
<i>Schinzel, Ursula</i>	<i>1210</i>
IMPROVING CONSUMERS' ONLINE EXPERIENCES: THE ROLE OF HEDONIC DIMENSIONS	1236
<i>Soares, Ana; Pinho, José Carlos; Alves, António</i>	<i>1236</i>
THE GROWTH OF ENTREPRENEURSHIP IN CHINA: FROM A HIDDEN TO A WIDELY DIFFUSED PHENOMENON	1246
<i>Stupino, Margherita¹; Giachino, Chiara¹; Bertoldi, Bernardo¹; Sbardelotto, Lorenzo²</i>	<i>1246</i>
FORMAL AND INFORMAL SMALL BUSINESSES: CHARACTERISTICS, CHALLENGES AND PROMOTION	1258
<i>Sultan, Suhail¹; Tsoukatos, Evangelos²</i>	<i>1258</i>
SPECIAL ECONOMIC ZONE POLICY IN POLAND	1271
<i>Świerkocki, Janusz</i>	<i>1271</i>
TAX EXPENDITURE ASPECT OF UNIVERSITY EDUCATION: THE MODEL OF TURKEY	1286
<i>Tosun, Ayşe Nil</i>	<i>1286</i>
FINANCIAL ANALYSIS AND TECHNICAL EFFICIENCY OF LIVESTOCK PRODUCTION: A TYPOLOGICAL APPROACH OF GREEK GOAT FARMING	1295
<i>Tsiouni, M.¹; Aggelopoulos, S.²; Pavloudi, A.²; Chioteris, S.²</i>	<i>1295</i>
ADOPTION OF PRACTICES OF ENVIRONMENTAL SUSTAINABILITY IN VITICULTURE: FIRST SUGGESTIONS FROM CANTON OF TICINO	1305
<i>Tulone, A.; Crescimanno, M.; Tinervia, S.; Galati, A.</i>	<i>1305</i>
AN ANALYSIS OF FIRM PROCESSES FOR INNOVATION: STAGE-GATE MODEL AND DISCOVERY DRIVEN PLANNING	1317
<i>Turi, Claudio¹; Iscaro, Valentina²; Castaldi, Laura¹; Ferraris, Alberto³</i>	<i>1317</i>
OMNICHANNEL EXPERIENCE – TOWARDS SUCCESSFUL CHANNEL INTEGRATION IN RETAIL	1325
<i>Tyrväinen, Olli; Karjaluo, Heikki</i>	<i>1325</i>

DUAL PERSPECTIVES ON THE ROLE OF ARTIFICIALLY INTELLIGENT ROBOTIC VIRTUAL AGENTS IN THE TOURISM, TRAVEL AND HOSPITALITY INDUSTRIES	1339
<i>Ukpabi, Dandison C.¹; Karjaluoto, Heikki¹; Olaleye, Sunday A.²; Mogaji, Emmanuel³</i>	<i>1339</i>
DERIVATIVE MISCONDUCT ON THE BASIS OF THE BREACH OF TRUST BETWEEN EMPLOYER AND EMPLOYEE	1352
<i>Van der Bank, Christiena Maria</i>	<i>1352</i>
THE LOYALTY AND SATISFACTION DETERMINANTS: A FACTOR ANALYSIS APPLIED TO THE SOUTH AND INSULAR PORTUGUESE TRADITIONAL RETAIL.....	1364
<i>Veloso, Cláudia Miranda¹; Ribeiro, Humberto²; Monte, Ana Paula³; Alves, Sandra⁴.....</i>	<i>1364</i>
AN EXAMINATION OF EXPORTS FROM PANAMA TOWARDS EUROPEAN UNION COUNTRIES USING DYNAMIC SHIFT-SHARE ANALYSIS	1379
<i>Veloso, Cláudia Miranda¹; Mejia, Marian Morales²; Duarte, António³; Ribeiro, Humberto⁴; Alves, Sandra⁵</i>	<i>1379</i>
THE SMART CITY BRAND INDEX.....	1393
<i>Viassone, Milena; Serravalle, Francesca.....</i>	<i>1393</i>
ENTREPRENEURSHIP AMIDST CHANGING INSTITUTIONS: A PANEL STUDY ACROSS COUNTRIES	1404
<i>West, G. Page III.....</i>	<i>1404</i>
WHY PUT OFF UNTIL TOMORROW WHAT I CAN BUY TODAY? THE ROLE OF PROMOTIONS AND EMOTIONS IN IMPULSE BUYING BEHAVIOUR	1418
<i>Yassin, Cherouk A.¹; Soares, Ana M.²</i>	<i>1418</i>
STAKEHOLDER ANALYSIS OF THE FOOTBALL INDUSTRY IN CYPRUS.....	1429
<i>Yiapanas, George; Thrassou, Alkis; Kartakoullis, Nicos</i>	<i>1429</i>
THE COMMUNITY POINT OF VIEW IS MORE IMPORTANT THAN EVER BEFORE: FROM ECITIZEN TO A SMART ENVIRONMENT	1440
<i>Zekanović-Korona, Ljiljana; Lugović, Šime</i>	<i>1440</i>
A CASE STUDY OF COLLABORATIVE MANAGEMENT APPROACH TO COMMON-POOL RESOURCES MANAGEMENT	1452
<i>Zhao, Fang¹; Mapuru, David²; Waxin, Marie-France³</i>	<i>1452</i>

TABLE OF ABSTRACTS

ENTREPRENEURIAL OPPORTUNITY RECOGNITION IN THE CONTEXT OF ENTREPRENEURIAL UNIVERSITIES.....	1469
<i>Aldawod, Alvin; Day, John</i>	1469
CRITERIA FOR ENTREPRENEURIAL UNIVERSITIES: EVIDENCE FROM THE UK UNIVERSITIES	1473
<i>Aldawod, Alvin; Day, John</i>	1473
SOCIAL MEDIA IN B2B SALES: A SYSTEMATIC LITERATURE REVIEW.....	1474
<i>Ancillai, Chiara¹; Terho, Harri²; Cardinali, Silvio¹; Pascucci, Federica¹</i>	1474
PARTICIPANT CENTRED LEARNING IN MANAGEMENT EDUCATION: THE CASE FOR LEARNING IN TURKEY	1478
<i>Andrews, Scott¹; Wasti, S. Nazli²</i>	1478
LUXURY ON OMNI-CHANNEL RETAIL: A LITERATURE REVIEW APPROACH	1481
<i>Ataíde, António Abreu; Brandão¹; Amélia Maria Pinto da Cunha¹; Loureiro, Sandra Maria Correia²</i>	1481
THE FUTURE OF THE GREEK BANKS THROUGH THE CHALLENGES OF AN AGEING POPULATION, IMMIGRATION AND TECHNOLOGICAL TRANSITION	1484
<i>Balomenou, Ch. ¹; Liakos, A. ²</i>	1484
SHARED SERVICE CENTRE IN ACCOUNTING IN MEDIUM-SIZED COMPANIES: A QUALITATIVE EMPIRICAL STUDY	1487
<i>Bantscheff, Stefan; Britzelmaier, Bernd</i>	1487
SOCIAL MEDIA IMPACT ON NPO BRAND EQUITY: CONCEPTUALIZING THE TRENDS AND PROSPECTS.....	1490
<i>Belenioti, Zoe- Charis¹; Vassiliadis, Chris A. ²</i>	1490
THE BUSINESS ARMONICO™: A NEW MODEL TO GO OVER THE BALANCED SCORECARD.....	1493
<i>Benedetto, Claudio¹; Serravalle, Francesca²; Viassone, Milena²; Zabbarino Antonella¹</i>	1493
“SUSTAINABLE” REPUTATIONAL REPAIR STRATEGIES IN RESTATING POLLUTING COMPANIES	1497
<i>Biscotti, Anna Maria¹; Matozza, Felice²; Mafrolla, Elisabetta¹</i>	1497
EXTENDED ABSTRACT - A FRAMEWORK FOR ENGAGING CUSTOMERS IN FOREIGN MARKET	1501

<i>Brandão, Amélia; Inês Senra Barreto de Faria; Gadekar, Mahesh</i>	1501
THE IMPACT OF PERCEIVED JUSTICE ON COMPLAINT PROCESS: AND SO WHAT?	1505
<i>Brandão, Amélia; Santos, Luís Delfim; Batista, Cláudia</i>	1505
INNOVATIVE RESEARCH GROUPS: THE ROLE OF TRANSACTIVE MEMORY SYSTEM	1509
<i>Cabeza Pullés, Dainelis; Gutierrez Gutierrez, Leopoldo J.; Llorens Montes, Javier; Molina Moreno, Valentín</i>	1509
PURE OR HYBRID? THE IMPACT OF BUSINESS MODEL DESIGN ON SMES INTERNATIONALIZATION PERFORMANCE	1512
<i>Casprini, Elena; Devigili, Matteo; Pucci, Tommaso; Zanni, Lorenzo</i>	1512
THE APPLICATION OF AN INTEGRATED OMNI-CHANNEL RETAILING STRATEGY IN THE 'BRICKS AND CLICKS' RETAIL COSMETICS INDUSTRY OF CYPRUS AND ITS INFLUENCE ON CUSTOMER LOYALTY: THE CASE OF BEAUTYLINE STORES.....	1515
<i>Christoforou, Konstantina</i>	1515
THE CERTIFICATION OF ECOLOGICAL, TRADITIONAL, HALAL FOODS ADDS VALUE FOR ROMANIAN PRODUCERS	1519
<i>Costea, Carmen; Saracin, Valentin-Cosmin</i>	1519
ASSESSMENT OF LEARNING EFFECTIVENESS ACROSS FOUR DIFFERENT INSTRUCTIONAL DELIVERY MODES	1524
<i>Dakhli, Mourad</i>	1524
CONSUMER TOUCH POINTS AND COGNITIVE PROXIMITY. MISSING FROM MILLENNIALS	1525
<i>Devigili, Matteo; Pucci, Tommaso; Fiorini, Niccolò; Zanni, Lorenzo</i>	1525
AN INVESTIGATION INTO EMPLOYEE TURNOVER WITHIN THE BULGARIAN HOSPITALITY INDUSTRY AND IDENTIFYING METHODS OF RETENTION THAT COULD BE ADOPTED	1528
<i>Dimitrova, Kristina; Bengoa, Dolores Sanchez</i>	1528
THE ENCROACHMENT OF THE COMPETITIVE INTELLIGENCE'S FUNCTIONS ON THE COMPANIES' PROFIT	1530
<i>Dinu, Daniel Gabriel</i>	1530
MULTIFACETTES ADVANTAGES OF SUSTAINABLE BUSINESS IN CHANGING THE LIFESTYLE	1535
<i>Dinu, Marinel Corneliu</i>	1535

FEAR OF FAILURE AND INTERNATIONAL OPPORTUNITY EVALUATION.....	1536
<i>Dong, Kechen; Muzychenko, Olga</i>	1536
EVALUATING TECHNOLOGICAL INTERACTIVE PRODUCTS BY THE VISUAL SIMPLICITY LEVEL OF THEIR DESIGN	1539
<i>Eytam, Eleanor</i>	1539
OPEN INNOVATION IN PUBLIC ORGANIZATIONS: EVIDENCES IN SMART CITY PROJECTS.....	1543
<i>Ferraris, Alberto¹; Gorla, Mirko²; Pellicelli, Anna Claudia³</i>	1543
PROJECT RISK MANAGEMENT IN SMALL AND MEDIUM-ENTERPRISES: FIRST RESULTS FROM AN EMPIRICAL ANALYSIS.....	1547
<i>Ferreira de Araújo Lima, Priscila; Verbano, Chiara</i>	1547
THE HEALTHY DIET - THE BEST OUTCOME OF THE AGRICULTURAL DEVELOPMENT USING EUROPEAN FUNDS	1551
<i>Gabrovecanu, Janina; Săracin, Valentin</i>	1551
EFFECTS OF CULTURE ON INVESTORS' RISK TOLERANCE	1556
<i>Galanopoulos, Panagiotis; Tsoukatos Evangelos; Repousis, Spyros</i>	1556
DOES THE SWITCH TO IFRS 11 BENEFIT THE VALUE RELEVANCE OF CO-VENTURERS' CONSOLIDATED FINANCIAL STATEMENTS?	1557
<i>Gavana, Giovanna¹; Gottardo, Pietro²; Moiselto, Anna Maria³</i>	1557
LEADERSHIP AND MOTIVATION STRATEGIES OF EMPLOYEES IN MULTINATIONAL COMPANIES	1560
<i>Gheta, Mădălina Ionela</i>	1560
METHODOLOGICAL BASES OF MODULAR DIGITALIZATION OF THE ENERGY SECTOR OF RUSSIAN ECONOMY.....	1565
<i>Gribanov, Yuriy¹; Bengoa, Dolores S.²</i>	1565
GLOBALIZATION OF CHINESE HIGH TECHNOLOGY FIRMS	1568
<i>Glowik, Mario; Ang, Alan</i>	1568
WHO SAID FEMALES ARE RISK AVERSE?.....	1571
<i>Hansen Saral, Susanne</i>	1571

DIGITIZATION AND OMNI-CHANNEL IN FINANCIAL SERVICES, WHAT MOTIVATIONAL COMPENSATION STRATEGY REALLY WORKS IN THE FINANCIAL SECTOR AGAINST THE BACKGROUND OF INCREASING DIGITIZATION AND OMNI-CHANNEL?	1574
<i>Hochscheid, Julian; Bengoa, Dolores Sanchez</i>	1574
CORPORATE SOCIAL RESPONSABILITY AND TOURISM DEVELOPMENT: A MODEL FOR THE EVALUATION OF STAKEHOLDER ENGAGEMENT DISCLOSURE IN THE HOSPITALITY INDUSTRY	1576
<i>Iazzi, Antonio; Cavallo, Federica; Fait, Monica; Scorrano, Paola</i>	1576
BUILDING INNOVATION CAPACITY IN MONTENEGRIN YOUTH	1581
<i>Karadzic, Vesna¹; Reyhani, Manijeh²</i>	1581
PERCEIVED VALUE OF MOBILE BANKING APPLICATIONS USE.....	1584
<i>Karjaluo, Heikki; Shaikh, Aijaz A.</i>	1584
DEVELOPING MULTI-CHANNEL CUSTOMER RELATIONSHIP MANAGEMENT STRATEGY FOR HOTEL OPERATION	1586
<i>Kefalas, Soteris</i>	1586
"INTEGRATED SUCCESSION MODEL" FOR THE EXTERNAL SUCCESSION PLANNING OF SMES AND FAMILY BUSINESSES FROM THE OWNER'S, STUDENT AND UNIVERSITY PERSPECTIVE.	1589
<i>Klapp, Emanuel</i>	1589
A HYBRID TOOL FOR HYBRID PROJECTS: HOW CROWDFUNDING CAN SCALE THE IMPACT OF SOCIAL ENTREPRENEURSHIP	1592
<i>Kocollari, Ulpiana; Pedrazzoli, Alessia; Cavicchioli, Maddalena</i>	1592
THE IMPACT OF ETHICAL VALUES AND MOTIVATION ON JOB SATISFACTION: EVIDENCE FROM GREECE	1594
<i>Koronios, Konstantinos; Kriemadis, Athanasios; Gkatsis, Georgia; Papadopoulos, Andreas</i>	1594
THE USE OF IMC AND SOCIAL MEDIA BY MUSEUMS DURING THE ECONOMIC CRISIS IN GREECE: A CASE STUDY OF MUSEUMS	1597
<i>Kourogiora, Maria; Papasolomou, Ioanna; Melanthiou, Yioula</i>	1597
FREE CASH FLOWS MODEL IN DAIRY INDUSTRY IN GREECE: THE CASE OF A FIRM "KRI KRI"	1598
<i>Lois, Petros¹; Aggelopoulos, Stamatis²; Zarifis, George³</i>	1598

ENGAGING RETAILING STAKEHOLDERS TO CORPORATE SOCIAL RESPONSIBILITY PRACTICES THROUGH SOCIAL MEDIA	1600
<i>Loureiro, Sandra Maria Correia¹; Lopes, João²</i>	<i>1600</i>
THE CYPRUS INDUSTRY AGAINST PORTER'S 'FIVE FORCES ANALYSIS' IN THE MIDDLE OF THE FINANCIAL CRISIS	1603
<i>Nikos, Magos.....</i>	<i>1603</i>
NEOPHOBIA, COUNTRY IMAGE AND FOOD CONSUMPTION. A PRELIMINARY STUDY	1606
<i>Mason, Michela Cesarina; Raggiotto, Francesco; Nassivera, Federico.....</i>	<i>1606</i>
MULTICHANNEL INTEGRATION AND CONSUMER BEHAVIOR IN A DIGITAL AGE: THE ROLE OF PHYSICAL DISTANCE	1608
<i>Matarazzo, Michela¹; De Vanna, Federica²; Resciniti, Riccardo³.....</i>	<i>1608</i>
TRUSTING BRANDS, TRUSTING PEOPLE	1611
<i>Mathews, Martin; Gotsi, Manto</i>	<i>1611</i>
VALUE INVESTING APPROACHES: A SYSTEMATIC LITERATURE REVIEW	1612
<i>Miglietta Nicola¹; Battisti Enrico¹; Creta Fabio¹; Salvi Antonio²</i>	<i>1612</i>
THE HEALTH TECHNOLOGY ASSESSMENT - AN INNOVATIVE TOOL TO FORTIFY THE ACCESS TO THE HEALTH SYSTEM.....	1614
<i>Mihoreanu, Larisa</i>	<i>1614</i>
HOW ENTREPRENEURIAL ORIENTATION AND STAKEHOLDER ENGAGEMENT SHAPE INNOVATION AT FAMILY BUSINESS	1618
<i>Monarca, Adélia¹; Martins, Carlos²; Torres, Isabel²; Barradas, Daniel²; Guerreiro, Miguel² and Rodrigues, Paula².....</i>	<i>1618</i>
PEEBLE IN THE SHOE? CONTENT MARKETING MADE IN PORTUGAL.....	1622
<i>Moreira, Tiago Durães¹; Brandão, Amélia Maria Pinto da Cunha¹; Novais, Rui Alexandre²</i>	<i>1622</i>
AN EXPLORATORY INVESTIGATION OF EXTREME VS TRADITIONAL SPORTS IN ADVERTISING.....	1625
<i>Moretti, Andrea¹; Scarpi, Daniele²; Mason, Michela Cesarina¹; Raggiotto, Francesco¹</i>	<i>1625</i>
STRATEGIC LEADER & LEADERSHIP FOR SUSTAINABILITY IN PROJECT MANAGEMENT ..	1627
<i>Mukerji, Debu</i>	<i>1627</i>
LINKING EFFECTIVE LEADERSHIP COMMUNICATION TO SOCIAL CAPITAL	1632
<i>Mulder, Dalmé; De Lange, Lucrezia.....</i>	<i>1632</i>

MINDFULNESS TRAINING: HOW TO BECOME A BETTER LEADER	1634
<i>Muzychenko, Olga¹; Raman, Dharmesh, Olga</i>	<i>1634</i>
WEB ANALYTICS ENHANCING PROJECT PLANNING: THE CASE OF DIGITAL MARKETING CAMPAIGNS	1637
<i>Ornato, Cristina¹; Ferraris, Alberto²</i>	<i>1637</i>
FIRM PERFORMANCE EFFECTS OF GENDER DIVERSITY IN CORPORATE BOARDS AND SENIOR MANAGEMENT	1641
<i>Öztaş, Fatma; Bozcuk, Aslihan E</i>	<i>1641</i>
CAN GREEN TAXATION TRIGGER PLUG-IN HYBRID ACQUISITION?	1643
<i>Pádua, Hugo; Barros, Victor</i>	<i>1643</i>
LEVERAGING NETWORKS OF EXCELLENCE BY DYNAMIC CAPABILITIES, TECHNOLOGY TRANSFER AND KNOWLEDGE MANAGEMENT: CRITICAL EVIDENCE FROM REGIONAL BIOTECH CLUSTER.....	1644
<i>Papa, Armando¹; Scuotto, Veronica²; Mancino, Ferdinando³; Pironti, Marco¹; Garcia –Perez Alexeis⁴</i>	<i>1644</i>
THE RHETORIC AND PRACTICE OF CORPORATE SUSTAINABILITY WITHIN LARGE FIRMS AND SMES IN CYPRUS: AN EXPLORATORY STUDY	1648
<i>Papasolomou, Ioanna; Melanthiou, Yioula; Ioannou, Maria; Kalogirou, Maria; Christofi, Panayiotis; Kokkinos, Theodosios</i>	<i>1648</i>
THE VALORIZATION OF “SLOW TERRITORIES” THROUGH THE DEVELOPMENT OF SUSTAINABLE AND EXPERIENTIAL TOURISM.....	1651
<i>Pavione, Enrica</i>	<i>1651</i>
THE CONTRIBUTION OF MASS MEDIA TO THE ENVIRONMENTAL AWARENESS OF PRIMARY EDUCATION TEACHERS: EXPLORING THE IMPACT OF GENDER	1653
<i>Petkou, Dafni</i>	<i>1653</i>
BUILDING AN EMOTIONAL RELATIONSHIP WITH THE CONSUMER: ANTECEDENTS AND OUTCOMES OF BRAND LOVE	1656
<i>Peyroteio, Paulo¹; Brandão, Amélia¹; Rodrigues, Paula²</i>	<i>1656</i>
ASPECTS OF SUSTAINABLE TOURISM DEVELOPMENT - ALBANIA AS A CASE STUDY	1659
<i>Pjero (Beqiraj), Elenica¹; Agaraj (Shehu), Xhiliola²</i>	<i>1659</i>
THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY STRATEGY ON FINANCIAL RESULTS OF COMPANIES FROM AEROSPACE INDUSTRY	1661

<i>Podkorytova, Elena; Belyaeva, Zhanna</i>	1661
OUTSOURCING CHOICES BETWEEN CONSCIOUSNESS AND INCONSCIOUSNESS.....	1664
<i>Popoli, Paolo</i>	1664
FOOD LOSSES AND WASTE AT COMPANY LEVEL: THE CASE OF BARILLA PASTA.....	1667
<i>Principato, Ludovica¹; Ruini, Luca²; Guidi, Matteo³; Cornini, Nicola²; Pratesi, Carlo Alberto¹; Secondi, Luca⁴</i>	1667
“TIME” AND “TECHONOLOGY” AS KEY ELEMENTS IN XXI CENTURY NEW BUSINESSES ...	1670
<i>Procacci, Silvia; Pellicelli, Anna Claudia;</i>	1670
CONSUMER BEHAVIOR AND CULTURE. PRELIMINARY INSIGHTS ON FAST-FOOD CONSUMPTION.....	1673
<i>Raggiotto, Francesco¹; Mason, Michela Cesarina¹; Moretti, Andrea¹; Paggiaro, Adriano²</i>	1673
A NEW HUMAN RESOURCE: "THE AGE OF REASON"	1675
<i>Rimmer, Avigdor</i>	1675
MEDIATION EFFECT OF BRAND EXPERIENCE BETWEEN DESTINATION BRAND PERSONALITY AND BRAND LOVE: THE PORTO CITY CASE	1677
<i>Rodrigues, Paula; Torres, Isabel</i>	1677
CONSUMER-BRAND RELATIONSHIP – TWO RIVAL MODELS TO EXPLAIN THE CONSUMER RELATIONSHIP WITH A LUXURY BRAND	1682
<i>Rodrigues, Paula¹; Costa, Paula²</i>	1682
CAUSE RELATED MARKETING AND GLOBAL BRANDS: HOW DO CONSUMERS PERCEIVE CRM STRATEGIES?	1688
<i>Rosato, Pierfelice¹; Campo, Raffaele²</i>	1688
LEADERSHIP’S NEED FOR KINDNESS IN UNCERTAIN TIMES	1691
<i>Rowland, Caroline¹; Thomas, Mike²</i>	1691
MEDICAL TOURISM FACILITATOR IN AN EMERGING MARKET CONTEXT	1694
<i>Rydback, Michelle</i>	1694
ACADEMIC AND SOCIAL JUSTICE: ACCOUNTING AND TRANSFORMATION	1697
<i>Sadler, Elmarie</i>	1697
DEMOGRAPHIC AND LABOUR IMPACTS IN MOUNTAIN AND STEEP SLOPE VITICULTURE SUSTAINABILITY	1699
<i>Santos, Cátia; Galindro, Aníbal; Marta-Costa, Ana</i>	1699

NEW TENDANCIES IN CONSUMERS' PERCEPTION AND ATTITUDE AMID THE DEVELOPMENT OF ECOLOGICAL AGRICULTURAL SECTOR	1703
<i>Saracin, Valentin-Cosmin; Costea, Carmen</i>	1703
ISRAEL'S SUBSIDY OF FOREIGN AIRLINES TO EILAT: A BENEFIT OR COST TO ISRAEL'S ECONOMY?	1710
<i>Schein, Andrew</i>	1710
THE SIGNIFICANCE OF GENDER DIVERSITY IN CORPORATE GOVERNANCE.....	1713
<i>Schipani, Cindy;¹ Dworkin, Terry²</i>	1713
FROM DESTINATION MARKETING TO PLACE MARKETING IN NORTH-WEST ENGLAND ..	1717
<i>Scott, Peter</i>	1717
QUALITY ASSURANCE PROCESS MANAGEMENT IN TRANSNATIONAL EDUCATION SERVICES: A RESEARCH NOTE ON STRATEGIC DIRECTION.....	1720
<i>Shams, S. M. Riad¹; Vrontis, Demetris²; Thrassou, Alkis²; Christofi, Michael³</i>	1720
DYNAMIC CAPABILITIES, STRATEGIC MANAGEMENT AND COMPETITIVE ADVANTAGE: A DEBATE AND RESEARCH TREND.....	1724
<i>Shams, S. M. Riad; Belyaeva, Zhanna</i>	1724
STAKEHOLDER CAUSAL SCOPE: A CROSS-FUNCTIONAL MANAGEMENT MODEL	1728
<i>Shams, S. M. Riad¹; Vrontis, Demetris²; Zvereva, Olga¹</i>	1728
THE IMPACT OF AGEING ON BEING A FAN OF BASKETBALL CLUB.....	1732
<i>Shuv-Ami, Avichai</i>	1732
THE EMOTIONAL INTELLIGENT MANAGER: A CULTURAL PERSPECTIVE FROM THE HOSPITALITY AND TOURISM INDUSTRY	1736
<i>Simillidou, Aspasia¹; Christou, Prokopis²</i>	1736
THE ROLE OF COACHING IN ORGANIZATIONAL CULTURE: A COMPARATIVE APPROACH	1740
<i>Solomon, Ionela Gabriela</i>	1740
FRAMEWORK FOR SUCCESS OF BUSINESS CONSUMER BEHAVIOUR: A SYSTEMATIC LITERATURE REVIEW APPROACH.....	1745
<i>Souto, Pedro¹; Loureiro, Sandra Maria Correia²</i>	1745

THE IMPACT OF THE SUPERVISORY ACTIVITY OF INSPECTORS FOR THE ADOPTION OF THE SHIELD METHODOLOGY ON THE WORKPLACE SAFETY AND CORPORATE PRODUCTIVITY	1749
<i>Spanò, Isabella</i>	1749
DEMAND, MARKETS AND INNOVATION FOR INDIAN MSMES	1752
<i>Srinivasan, Shrisha; Kunjangad, Kiran</i>	1752
THE INFLUENCE OF EUROPEAN FUNDS ON THE ROMANIAN HEALTH SYSTEM DEVELOPMENT: OPPORTUNITIES AND CHALLENGES	1754
<i>Ștefănescu, Alexandru Mihai</i>	1754
IMPROVING THE LEVEL OF COMPETENCIES FOR HEALTH PROFESSIONALS THROUGH FUNDING PROGRAMS – HCOP	1760
<i>Ștefănescu, Alexandru; Gabroveanu Vladi, Janina Mirela</i>	1760
CUSTOMER INFORMATION MANAGEMENT: CONTEMPORARY ISSUES OF PRIVACY AND TRUST	1765
<i>Themistocleous, Christos; Pagiaslis, Anastasios; Smith, Andrew</i>	1765
OPEN INNOVATION PROCESSES AND CROSS FERTILIZATION; THE CASE OF IT AND GARMENT	1767
<i>Tremblay, Diane-Gabrielle</i>	1767
FARMERS' WILLINGNESS TO PAY FOR COLLECTIVE BRANDS	1769
<i>Tselempis, Dimitrios¹; Karipidis Philippos¹; Tzimas Dionysios²; Kontogeorgos Achilleas³</i>	1769
THE DOUBLE STANDARD UNDER ROMANIAN LENS: FOOD FRAUD, AN ATTACK TO FOOD SAFETY!	1771
<i>Vasile, Adrian</i>	1771
ISRAEL'S INNOVATION ECOSYSTEM, THE HISTORICAL ROLE OF GOVERNMENT ASSISTANCE	1774
<i>Weinberg, Caren</i>	1774
RISK ATTITUDES AND INTERNATIONAL MIGRATION	1775
<i>Žičkutė, Ineta</i>	1775

BOOK OF CONFERENCE PROCEEDINGS

EFFICIENCY IN ITALIAN SAVING BANKS: IS UNITY THE STRENGTH?

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ABSTRACT

This study investigates the Italian SBs sector efficiency over the 2010 –2015 period. The measure of efficiency, in the first stage, is estimated via Data Envelopment Analysis – Slack Based Model. In the second stage we compare the performance of SBs belonging to bank groups with those stand-alone via Policy Evaluation. Results show that when comparing SBs belonging to a banks group with stand-alone SBs, although a positive but not significant ATT, we find no relevant differences between the SBs part of group and the stand-alone. However, with reference to Technical Efficiency the stand-alone SBs experience the worst performance while after an insight into the inefficiency decomposition it is clear that difficulties are due to managerial inefficiency.

Keywords: Saving Banks, Efficiency, Data Envelopment Analysis, Policy Evaluation, Average Treatment Effect on the Treated, Performance, Group, Stand-alone

INTRODUCTION

The banking sector is continuing to play a crucial role in countries economies and Saving Banks (SBs), part of it, are fundamental in economic developments (Gardener et al., 1997; Iannuzzo et al., 2010). The competitive pressures led to the restructuring of Italian SBs. The government set the sectorial reform by issuing the Amato Law no. 218 of 30 July 1990 in order to reorganize the sectors legal framework leading to the transformation of public banks into JSCs.

Researchers have investigated the influence of firm ownership structure affecting performance (e.g. Jensen and Meckling 1976, Fama and Jensen 1983). Due to it being commercially competitive, Köhler (1996) pointed out the the relevance of the SBs efficiency evaluation stating that they would require an efficient management and sound earning capacity and be subject to those same competitive forces within the EU banking system.

In Italy, we know that SBs had a congruous influence on local territories. With respect to the present framework, the aim of our study seeks to investigate whether, and to what extent, belonging to a banking group improves performance in terms of efficiency.

Our study, addresses this fundamental research question: is there a relative efficiency recent trend that led the transformation of the Italian SBs and allows for its shifting from a territorial proximity to a territorial branding and finally to a partial sectorial demise?

In Section 2 we trace a theoretical background and a brief note on the Italian SBs sector while Section 3 focuses on data specifications and methodology. Section 4 focuses on the SBs efficiency results of SBs belonging to Groups versus those Stand-alone. Section 5 highlights conclusions and remarks. To the best of our knowledge, this is the only study of its kind.

THEORETICAL BACKGROUND AND A BRIEF NOTE ON THE ITALIAN SBS SECTOR

Studies on the Italian banking sector efficiency are few examples are those conducted by Favero-Papi (1995) and Resti *et al.* (2015) about the determinants as scale inefficiencies and regional disparities while there is one on Italian cooperative banks as per Barra *et al.* (2013). Casu and Girardone (2002) compared results obtained in different countries focusing on commercial banks. Since the work of Sherman and Gold (1985), considered the first on the banking industry, scholars refer to the DEA technique as a useful tool to measure the relative efficiency of banks as in Berger and Humphrey (1997), Fethi and Pasiouras (2010) and Tsolas (2011). Berger and DeYoung (1997) and Williams and Gardener (2003) shows that a low levels of efficiency lead to lack of credit monitoring and inefficient control of operating expenses. The main reason for the use of the DEA technique is the smallest number of observation requirements and because it takes into account multiple inputs and outputs simultaneously, compared to ratios where one input relates to one output at each time as per Thanassoulis (1993). Italian SBs started operating in the nineteenth century as institutions in which the credit and social aspects were intertwined, rooted in social and economic goals. However, at the end of the twentieth century due to sectoral regulatory developments they turn into full joint stock companies operating under complete commercial principle taking into consideration both stakeholder values and shareholder value. In order to add some useful information to the actual banking framework, the Bank of Italy's annual report states that *"At the end of 2015 Italy had 139 banks belonging to 75 banking groups, 424 standalone banks, and 80 branches of foreign banks. Last year the number of banks decreased by 20: there were 16 new licences and 36 terminations, of which 26 were due to bank consolidation, 8 to liquidation and 2 to voluntary termination of the banking licence"* and that *"In November 2015 a solution was found to the crisis of four banks under special administration, holding around 1 per cent of system-wide deposits. The solution was based on the new rules introduced in the Italian legal system in transposing Directive 2014/59/EU on the recovery and resolution of credit institutions and investment firms (BRRD)"* Banca di Italia, (2015).

According to the Bank of Italy's information, the Italian Government after some financial scandals issued the Law Decree on the 22 November 2015, n. 183 (a.k.a. "*decreto salva banche*", 2015) choosing to terminate four banks while setting up four new substitute entities.

DATA SPECIFICATIONS AND METHODOLOGY

The analysis covers the 2010 - 2015 period and the data source is Bankscope (2015).

DATASET SAMPLE	2015	2014	2013	2012	2011	2010
TOTAL SBs	23	29	34	37	40	38
GROUP	11	16	20	22	25	23
NO GROUP	12	13	14	15	15	15

Table 1. *The SBs sample dataset for the 2010 - 2015 period.*

In order to measure banking efficiency there are two main approaches: the intermediation approach of Sealey and Lindley (1977), which considers the bank as intermediators by transforming the production factors into outputs and the production approach. In the first part of the analysis, we evaluate the efficiency of SBs as per the Slacks based Model of Tone (2001) while in the second part we compare the performances of the SBs part of a bank group with the performances of those SBs via policy evaluation tools. Table 2 provides the variables descriptive statistics.

Variables	Type	Min	Median (A)	Max	Mean (B)	Dev. st.	A/B*
Impaired Loans	Input	29	248	4.858	690	979	0,36
Total Assets		584	2.926	50.587	6.492	10.029	0,45
Total Expenses		15	69	1.218	138	209	0,50
Loans	Output	428	2.185	36.029	4.662	6.991	0,47
Pre-tax Profit		-2.169	7	401	0	179	68,26
Total Deposits		274	1.491	27.283	3.033	4.512	0,49

*discounted values at 2010 prices

Table 2. *The whole period 2010 - 2015 dataset descriptive statistics. Data in Mln. of € – Source: Bankscope - Bureau Van Dijk (2016).*

Total assets, operating expenses and impaired loans are inputs variables. With reference to the outputs side we chose the total loans, customer deposits (considered by many as an input and by others as an output) and pre-tax profits. The main reason for the use of Efficiency Frontier Techniques like DEA, a non-parametric technique, lies in the fact that frontier approaches appears to be superior to standard financial ratios analysis (Iqbal and Molyneux, 2005) as, also, per the Basel Committee report (2006) which stated that the frontier efficiency measures provides a better comprehension over traditional ratios, especially on corporate governance issues. We refer to DEA as per Charnes *et al.* (1978) and Banker *et al.* (1984) in a SBM as per the Tone (2001) version with t multiplying all the variables.

The linear program is the following:

$$\begin{aligned}
 \min_{t, \lambda, S, Z} \quad & \tau = t - P_c Z \\
 & t + P_y S = 1 \\
 & x_0 = X\lambda + Z \\
 & y_0 = Y\lambda - S \\
 & \lambda \geq 0, S \geq 0, z \geq 0
 \end{aligned} \tag{1}$$

where the vector of actual inputs is under evaluation, the costs matrix of banks sample, is the vector for inputs excesses, is the vector of firms outputs under evaluation, is the matrix with the outputs of all the firms sample, is the vector with the output slacks, is the vector of intensity and and are the vectors that contains weights. Uncovering the effects of being part of a group on efficiency is arduous because of the merge of a bank does not happens randomly. In order to evaluate this kind of influence, we perform an impact evaluation considering SBs part of a group as the “*treatment*” variable. Our check relies on a set of banking sector ratios measures such as, Impaired Loans to Gross Loans Resti *et al.* (2015), Loans to Customer Deposits (Williams and Gardener, 2003) and Altunbaş and Marqués (2008), and Interest Income on Loans to Average Gross Loans (Foos *et al.*, 2010). Moreover, we add the Cost to Income Ratio (Beccalli *et al.*, 2006), Hess and Francis (2004) and Mathuva (2009) and the Tier 1 Regulatory Capital as per Merle (2013) and Beltratti and Stulz (2009). To address self-selection bias (heterogeneity in treatment propensity that relates to the variables of outcomes), we refer to the PS Matching as per Rosenbaum and Rubin (1983):

$$P(X) = \Pr(D = 1|X) = E(D|X) \tag{2}$$

where is the PS: the conditional probability of receiving the treatment that in our case is being part of group) given certain characteristics.

ITALIAN SBS EFFICIENCY RESULTS AND GROUP VERSUS STAND-ALONE

The figures 1.1 and 1.2 highlights, respectively, the combined relative efficiency level over the 2010 – 2015 period under CRS, VRS and the SE efficiency (adopting nominal values) and the combined and aggregate level of those SBs belonging to a Group or Stand-alone.

SBs combined DEA CRS, VRS and SE efficiency (nominal values) (1.1) **SBs combined DEA efficiency of Group – Stand Alone (discounted values) (1.2)**

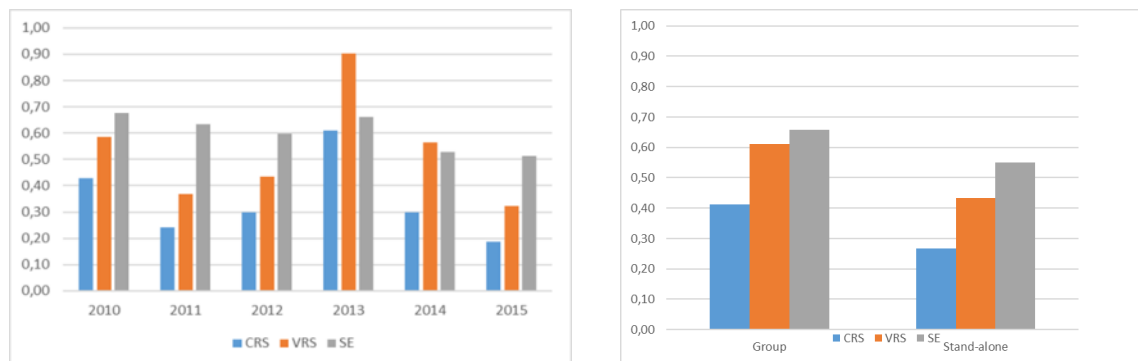
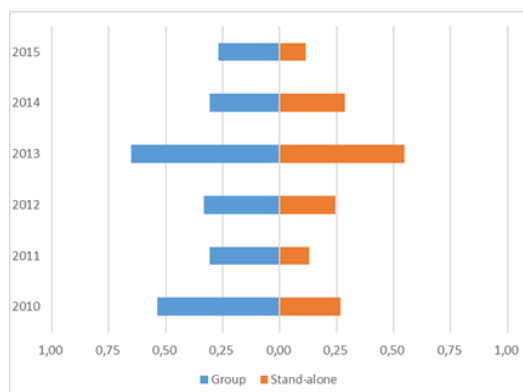


Figure 1. *The Efficiency of Italian SBs over the 2010 - 2015 period on the base of two different perspectives.*

The following figures 2.1 and 2.2 highlight, respectively, the combined level of the relative efficiency over the 2010 – 2015 period under CRS, VRS and the SE efficiency (adopting nominal values) and the combined and aggregate level of those SBs belonging to a Group or Stand-alone.

SBs CRS Group vs. Stand-alone (2.1)



SBs VRS Group vs. Stand-alone (2.2)

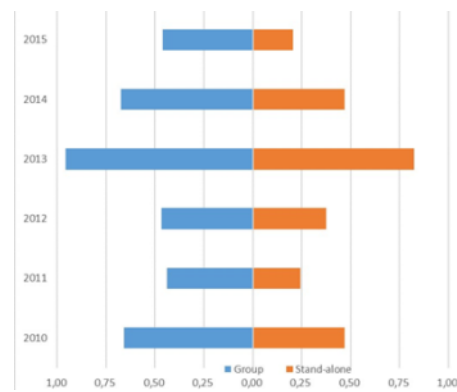


Figure 2. *The efficiency of Italian SBs over the 2010 – 2015 period, belonging or not to a bank group, on Constant Return to Scale (2.1.) and Variable Return to Scale (2.2) on the base of discounted values.*

Yet we face the first self-selection problem: is the performance difference due to the Groups policies or to the self stand-alone performance? A merger or a takeover is never a casualty. Hence, we choose to compare the last performances by controlling a set of variables using the PS Matching approach. Having estimated the PS and following the Becker-Ichino (2002) algorithm, we detect the ATT, where the treatment is to be part of a group.

Methodology	CRS (Technical Efficiency)				VRS (Managerial Efficiency)			
	ATT	Std. Err.	95% Conf. Interval		ATT	Std. Err.	95% Conf. Interval	
Stratification	0,178	0,086	0,003	0,374	0,231	0,124	-0,049	0,421
Nearest neighbour	0,200	0,078	-0,123	0,319	0,238	0,126	-0,059	0,420
Radius	0,118	0,057	0,006	0,228	0,155	0,062	0,041	0,300
Kernel	0,171	0,077	0,022	0,299	0,222	0,115	-0,012	0,398

Table 4. *The ATT Results, Non-treated (0 – Stand Alone) vs Treated (1 - Group). Confidence intervals are bias-corrected; bold values are statistically significant (95%).*

As table 4 shows, although the ATT is slightly positive but not particularly significant revealing that the economic side controls shows no significant differences between the 20 SBs part of a bank group and the 16 stand-alone.

CONCLUSIONS

Our study shows the level of relative efficiency of the combined Italian SBs over the 2010 – 2015 period. In comparison to their belonging to a group or not we observe no significant differences. In addition, via policy evaluation tools, we find no relevant dichotomies among SBs belonging to groups with those not part of it.

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CHILDHOOD MEMORIES, EXPERIENCES AND EMOTIONS: CONTENT ANALYSIS OF CELEBRITY TRAVEL NARRATIVES

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ABSTRACT

This paper discusses the influence of celebrities travel narratives, which may result from interviews or planned fam-trips articles. Celebrities often play the role of tourism brands endorsers as their stories may generate high levels of engagement and electronic word-of-mouth. The paper also explore the role of the childhood memories on adults' tourism choice decision making. A qualitative study was conducted through the content analysis of 13 interviews published on 2017 in the newspaper "The Telegraph" in the section "Travel: Celebrity Interviews". Some celebrities have vivid childhood memories of significant events linked to tourism journeys. Emotions and sensorial memories involving food are recognized are key elements for designing and co-creating new experiences. Negative circumstances can have a long-term impact on children. Issues related with the airport's security procedures, or how to spend the waiting time for flight are the major concerns and stress sources in the tourists' journey.

Keywords: Tourism marketing, childhood memories, celebrity, travel narratives, content analysis.

INTRODUCTION

This paper discusses the influence of celebrities travel narratives, which may result from interviews or planned fam-trips articles. Travelers' decisions are increasingly dependent on the opinions of travel writers (Williams and Shaw, 1995). According to Dann (1999, quoted by Rozier-Rich and Santos, 2011) "travel narratives offer alluring descriptions of faraway locales; space and time are frequent categories which are generalizable across cultures and eras; narratives focus on the journey; and lastly, from 'writing out' the tourist experience, travel writers connect with the anti-tourist within the reader" (pp. 182-183).

Celebrities act as cultural icons and ambassadors in mass media-driven societies (Lee et al., 2008). If the travel narrative is made by a celebrity, an additional mechanism of persuasion occurs as the celebrity play the role of endorser of the brand of the destination, attraction or tourism operator, producing positive/ negative (electronic) word-of-mouth – eWOM (Lund, Cohen and Scarles, 2017).

The celebrities create a sense of warmth and touch in the minds of travellers, which is also believed to influence their interest and decision to visit tourism destinations (Rajaguru, 2014).

Travel narratives is a phenomenon that have exponentially increased in recent years throughout the media outlets (Rozier-Rich and Santos, 2011): print media (National Geographic, Fodor's Travel Guides, Lonely Planet Travel Guide, Rick Steve's Travel Guidebooks, travel sections in most major newspapers); television (The Travel Channel, The Discovery Channel, The Food Network, Globe Trekker); radio (Travel with Rick Steves, Talkin' Travel, Peter Greenberg's Travel Show); podcasts (Amateur Traveler, Fodor's, National Geographic); in-flight magazines (Sky Magazine, Attaché, Hemispheres, en Route, American Way Magazine, Go Magazine); and countless websites on the Internet (Expedia.com, IgoUgo.com, Orbitz.com, Traelocity.com, Concierge.com).

On other hand, several media have already created a space for common tourists share their travel stories, photos and recommendations providing an opportunity for word-of-mouth and viral marketing.

This paper acknowledges the claim of Rozier-Rich and Santos (2011) that there is a gap in the travel and tourism literature concerning the examination of travel articles. Moreover, the role of the childhood memories on adults' tourism choice decision making has been discussed by Marschall (2012, p.321) who claimed that "memory is a crucial factor in choosing a destination; it impacts on the tourist experience at the destination and on the sharing of the experience with others after the trip, notably through narration, photography, and memory objects, such as souvenirs". Marschall (2014, p.335) refined the conceptualization of 'personal memory tourism' as "a form of travel motivated by memories of one's own past and focused on the revisiting of sites and destinations associated with key moments in a person's life or the retracing of memorable previous journeys".

LITERATURE REVIEW

Travel narratives as a form of publicity

According to Gartner (1993), by utilizing travel articles as a means of what he termed "covert publicity", "credibility is increased as the image is now presented by a person who does not appear to have any connection with the destination except through prior visitation" (p. 201).

Publicity has been defined as "editorial space, rather than paid space, in print and broadcast media, to promote a product, place or person" (Loda, Norman and Backman, 2005, p.64). There are several forms of publicity in travel and tourism context, namely the informative travel articles made opinion-makers, specialists, frequent travelers whose travelling expertise are acknowledge. Rozier-Rich and Santos (2011) also compared the efficacy between travel brochures (advertising) and travel articles (publicity) and confirmed the influence of age and gender in travel narrative processing by measuring

the persuasiveness effect using the transportation scale and SKEP (Skepticism toward advertising scale).

For example, Rozier-Rich and Santos (2011, p.395) defined travel articles “as narratives primarily concerned with providing instruction and interpretation of recent travel experiences written in a non-fictional narrative story format, from a first-person account, and published in regional and national newspapers and magazines”. According to Pera (2017, p.332) highly creative, skilled, collaborative, and connected traveller creates value not only for himself/herself and the company, but also for other travellers. Similarly, Labrecque (2014) applied the parasocial interaction theory (PSI), described as an illusionary experience that makes consumers interact with media representations of presenters, celebrities or characters as if they are present and engaged in a reciprocal relationship.

Conceptualizing the travel experience

If the travel narratives aim to tell a story of the travel experience, it is also important to analyze the notion of *experience*. Volo (2009) followed the notion of Tsai (2005) that the holistic consumer experience can be seen as made of two facets: a phenomenological level – of which consumers are fully aware – and a cognitive level where the transformation and learning happen. Therefore, the experience is composed of all the events that occur between sensation (i.e., an observer’s awareness of an energy form impinging on a receptor physiologically designed to transduce it) and perception (i.e., the interpretation of the sensation), as well as memory (i.e., the subsequent organization and recall of such interpretations), which will have been modified and conditioned in the interim by many if not all of the prior and subsequent occurrences of this ‘sensation, perception, interpretation, sequence.

Based on WTO definition and the insights from tourists’ spontaneous annotations, Volo (2009, p.119) defines tourist experience as “any occurrence that happens to a person outside the “usual environment” and the “contracted time” for which a sequence of the following events happens: energy reflecting the state of the environment impinges on sensory organs, the energy pattern is transmitted centrally and is interpreted and categorized according to one’s knowledge acquired through time and is integrated and may be stored in the form of memory under some conditions (and thus some learning will occur)”.

Moreover, the human capacity of memory allows individuals to anticipate experiences, and their innate ability to categorize dissimilar things, allows them to sort ‘anticipated experiences’ into those they might seek and those they would avoid.

One strong component of the ‘personal memory tourism is about revisiting the house in which oneself was raised, the house to which many childhood memories are attached.

The influence of (tourism) childhood memories on adults’ tourism choice decision-making and behavior

Marschall (2012) introduced the concept of 'personal memory tourism', which revolves around travel associated with personal memories – not only the revisiting of places associated with happy memories, but also the return to sites of personal trauma and suffering in a quest for healing. Marschall (2014) compared it with other similar concepts such as Heimwehtourismus or Heimattourismus, 'homeland tourism' and another form of roots tourism with a strong emphasis on personal or family memory.

Therefore, remembering the adult memories of childhood holidays (Nenga, 2003; Shaw, Havitz and Delemere, 2008; Small, 2008, Yin, Poon and Su, 2017) will help to assess the personal memory tourism related not only to real places but also to a fictional world that made a deep impression on the mind. However, according to Small (2008), till the first decade of this century, the meaning of holidays for children and the role of the holiday in constructed subjectivities were largely absent in academic writings. Small (2008) used the social constructionist research method of memory-work to examine the memories of childhood holidays of Australian women and girls. She concluded that shared, fun, physical activities are common positive memories of childhood holidays across the generations.

The study of Cullingford (1995), who studied the attitudes toward holidays overseas of British children aged seven to 11 years, is the exception to that absence. This author found that children had clear ideas of which countries were attractive as holiday destinations or even the differences in being abroad. Travel meant good weather, eating out, or enjoying the entertainment of a beach holiday with friends (Gram, 2005). Children travelling abroad when taken to the "sights" showed a great deal of interest.

Furthermore, memory researchers have consistently reported that the experiences recalled most frequently are those that are emotional in nature (e.g., Dudycha and Dudycha, 1933; Waldfogel, 1948) or symbolic to the consumer and represent a new lens for viewing brand meaning (Braun-LaTour, LaTour and Zinkhan (2007). These findings are aligned with Agapito, Mendes and Valle (2013) study who pointed out that the sensory dimensions (sight, hearing, smell, taste, and touch) have an important role in the construction of the memories of tourism experiences.

Moreover, research has shown that a childhood event may become experiential and memorable, and influence the adult behavior, as it may impel the desire of recreating nostalgic experiences, involving products and brands associated to symbolic meanings (Braun-LaTour et al., 2007; Kauppinen-Räsänen, Gummerus and Lehtola, 2013).

More recently Kauppinen-Räsänen, Gummerus and Lehtola, (2013) recognized in childhood memories several themes involving eating related to tourist experiences, as well as memories of commensal eating and homemade food. The study suggests that remembered eating and food experiences are characterized by the self, place, food, context and time.

For Sharpley and Jepson (2011) childhood memories, in particular those related with rural countryside (Pesonen and Komppula, 2010), can evoke special feelings and connections to a place, leading to place identity or dependence. In particular, Heintzman (1999, p. 4) concluded that settings that have a 'sense of personal or human history are conducive to spiritual well-being'.

Emotions elicited by places and experiences

According to Servidio and Ruffolo (2016) there is a relationship between emotional involvement and recall of memorable tourism experiences. Pan, Lee and Tsai (2014, p. 60) present the definition of affection attributed to a place, according to Russell and Pratt (1980), as "the emotion induced by a place and is expressed by a person in language". The categories of affective feelings include arousing, exciting, relaxing, pleasant, distressing, gloomy, sleepy and unpleasant (Russell and Pratt, 1980). By the same token, affective image deals with the emotional response of an individual to a place (O'Neill and Jasper, 1992) expressed in mental pictures. Based on the affection-then-action argument, the current study works backward from behaviors to rules, using a process of induction because tourists' real motives may be revealed through observation and reading their travel stories (Dann, 1981). Behavior in this study is represented by the travel taken and the outcome is the photos taken and stories told by the photo suppliers.

According to Volo (2009) tourists' experiences have been usually studied by means of: (a) structured surveys; (b) travel diaries; (c) structured or unstructured interviews; (d) observant participation (e) spontaneous travel narrative on periodicals (e.g., Kim, 2014); (f) memory-work (e.g., Small, 1999). Recently, alternative unobtrusive methods have been used in the field of environmental sciences, varying from diaries to videos, sensory devices and use of GPS systems.

METHODOLOGY

A qualitative study was conducted through the content analysis of 13 interviews (see Table1) published on 2017 in the newspaper "The Telegraph" in the section "Travel: Celebrity Interviews" <http://www.telegraph.co.uk/travel/celebrity-interviews/>.

The interview script usually consists of twelve research questions which are presented below: Q1- How often do you travel?; Q2- What do you need for a perfect holiday?; Q3- What is the earliest memory of travelling abroad?; Q4- What is your most adventurous travel experience?; Q5- What is your favourite Hotel?; Q6- What is the most relaxing destination?; Q7-What is the best holiday ever? Q8- What is your favourite city?; Q9- What is your best travel advice? / Best piece of travel advice? /Best travel tip?; Q10- What are the travel essentials?; Q11- What do you hate about travelling? Q12-

Where do you intend to go next? However, this study will not only analyse the questions Q6, Q8 and Q12.

Table 1- Sample description.

Name	gender	occupation	interview date
Johanna Konta	Female	Tennis player	18th May 2017 4:48 PM
Eleanor Tomlinson	Female	Actress and British model	11th May 2017 6:02 PM
Ian Rankin	Male	Writer	8th May 2017 3:45 PM
Jennifer Saunders	Female	Actress, comedian and English screenwriter	27th April 2017 10:33 AM
Tom Chaplin	Male	Singer	24th April 2017 10:48 AM
Michael Ball	Male	English actor and singer	18th April 2017 12:27 PM
Irvine Welsh	Male	Scottish Author	6th April 2017 12:58 PM
Rankin	Male	Photographer	27th March 2017 9:41 AM
John Blashford-Snell	Male	Colonel - former British Army officer, explorer and author.	24th March 2017 11:31 AM
Dan Snow	Male	British TV presenter	17th March 2017 3:59 PM
Mathew Horne	Male	Actor	8th March 2017 2:13 PM
Alessandra Ambrosio	Female	Super model	2nd March 2017 1:13 PM
Sir Don McCullin	Male	Veteran British war photographer	28th February 2017 1:50 PM

Source: Authors

DISCUSSION OF RESULTS

A content analysis performed on the answers to the first question (How often do you travel?), reveals that the majority of celebrities undertake most of the trips, over the course of a year, for working reasons. For the second research question (What do you need for a perfect holiday?) excerpts from celebrities' responses are given:

"Food is a passion, so as long as the food is good, I would be happy anywhere. It doesn't have to be fancy, just fresh, good quality produce. Plus, some chill-out time on a sunny beach." |Johanna Konta|; *"I love both sun and snow holidays."* |Eleanor Tomlinson|;

According to Pearce (2005), there are four common factors in travelling motivations: cultural captivation, immersion into nature, seeking familiarity, and relieving day-to-day stress.

The answers of celebrities are aligned with Cai and Combrink (2007) who proposed the push and pull theory in tourism. Push factors include learning, relaxation, challenge, outdoor activities, status, rest and socialization. Pull factors are understood, such as safety, entertainment, nature, monuments, education, budget and culture are perceived, as determining factors of tourists' motivation.

Next, the content analysis about third question (Earliest memory of travelling abroad?) was carried out. This question operationalizes the major research question of this study. Excerpts from celebrities' responses are given below. *"We used to travel all the time to Wales to see family and had regular trips to the seaside at St Ives or Tintagel when we lived in Plymouth, but we only ever had one holiday abroad: Sardinia when I was eight. I remember climbing to the top of some ancient monument atop a hill in the blistering heat, and having to sit with mum before reaching the top, while dad insisted on carrying on."* |Michael Ball|

This event seems to influence the future decisions as Michael Ball prefers Mediterranean destinations and the sunscreen is one essential object for travelling. He still has concerns about security and comfort.

McCabe (2009), in a social tourism context, examined the reasons for a holiday amongst low-income families and other groups who experience barriers to participation in tourism. Childhood memories were understood as being special because as McCabe (2009, p.677) stated: "they are different to the memories of adults who experience the world differently and perhaps this reflects a desire to provide children with memories of innocent and happy times. Negative circumstances can have a long-term impact on children, and there is a desire that these are not the only things that are remembered."

"When I was about seven, I remember going to Hungary to visit relatives on my own, and being chaperoned around the airports because I was an unaccompanied minor. I remember the seats seemed huge. My family are scattered all over the country. Budapest is a beautiful city and Lake Balaton is another stunning place. I love Hungarian food, because of the wonderful dishes my grandparents served." |Johanna Konta|

Along the interview, Johanna Konta reveals that influence of food remains as an important criterion for the choice of favourite destination, hotel and restaurants.

"Caravan or crofting holidays in Scotland. My mother is from Dalry in Ayrshire. I remember leaping into the freezing sea and running straight back out and being slathered in some foul-smelling gloop to keep the midges at bay." |Jennifer Saunders|

"We'd go on Eurocamp holidays in the south-west of France at Mimizan Plage. My dad loved the big breakers you'd get there to go bodyboarding. I had incredibly fair skin, so inevitably I turned beetroot." |Tom Chaplin|

Some excerpts from celebrities' responses to the fourth research question (Most adventurous travel experience?) were analysed. Most of the experiences belong to the "escapism" category according to Pine and Gilmore (1998) grid as they implied an active participation of the celebrity tourist in activities such as trekking or swimming.

“After filming the first season of Poldark, I went with the cast on a trip to Iceland. We started off in Reykjavik and then went into the mountains and swam in naturally heated pools.” |Eleanor Tomlinson|

“Three weeks in India with Natalie. We hired a driver who took us all over northern India, including the city of Agra where the Taj Mahal is. We stayed in the Oberoi Hotel and swam at night under the moonlight in their pool area. I’d planned on proposing, but was paranoid that the ring would get lost or my surprise would be uncovered. In the end, I chickened out.” |Tom Chaplin|

“Trekking through the Peruvian Andes with my children 10 years ago. We flew to Lima and started from Lake Titicaca. Then we took a train to Cuzco. We wove through the valley floor with the mountains around us – the views were breath taking. We hiked up to Machu Picchu, passing alpacas and camping along the way. I’d love to return to do the Inca Trail.” |Jennifer Saunders|.

The choice for one’s favourite Hotel (RQ 5- Favourite Hotel?) reveals a desire for privacy, moments of relaxation, good food and a beautiful view as we can notice from the excerpts that follow: *“The Fasano in Rio de Janeiro – for work or pleasure. The view from the pool is gorgeous.” |Alessandra Ambrosio|; “The Peponi on Lamu Island in Kenya is beautiful. The food is excellent food and there is a lovely beach offering serene sea views.” |Colonel John Blashford-Snell|; “Hotel Splendido in Portofino the most expensive place on God’s green earth, but it was a birthday treat. Also, the Graycliff in the Bahamas, where Edward and Mrs Simpson stayed. I actually prefer villas, so I can wake up and make my own breakfast and have some privacy.” |Michael Ball|; “I love the Prestonfield Hotel in Edinburgh, when we’re there for the festival. But the longest Natalie likes staying away from Freya is two nights, so spa breaks have become very important. The Lime Wood Hotel in Hampshire is great for that.” |Tom Chaplin|*

From the content analysis about the seventh research question (Best holiday ever?), the majority of celebrities mentioned food; thus, no matter what the research question is, the celebrities almost always mention food as a factor of attractiveness.

“Rome. I have been a few times now. For my first visit, with my parents, we did quite a bit of sightseeing. We visited the Vatican and Colosseum, and found some great restaurants and gelaterias. I have a bit of a thing about gelato.” |Johanna Konta|

“I was caught up in a gun battle in Salvador in the Eighties. I was climbing a roof with soldiers when it collapsed. I ended up falling through the air, and breaking my arm, elbow and the bones in the back of my rib cage; I lay on the ground all night as the battle raged all about me. That, or the occasion I had a burger made out of rat meat –actually, surprisingly good.” |Sir Don McCullin|

“I went to Bestival, on the Isle of Wight in 2007. The music, the weather, the friends – it all made it feel like a proper holiday. I’ve been to Reykjavik five times. New Year’s Eve in 2008 was pretty spectacular.” |Mathew Horne|

From the content analysis about the ninth research question (Best travel advice? / Best piece of travel advice? /Best travel tip?), we can highlight the use of comfortable clothes and shoes and the adoption of some objects that make their trips easier and comfortable such like tea bags. Excerpts from celebrities' responses are given below.

"Dress comfortably. I have some great Asics gear that I wear, and I can't fly without my flight socks." |Johanna Konta|

"Think about airports and work out what you're going to do if it doesn't work out. And buy a pass for one of the lounges so you can escape the chaos". |Jennifer Saunders|

"Having travelled so much, I've seen so many people's suitcases live and die. I invested in a top-of-the-line Tumi suitcase that cost around €900. Everyone laughed and said what a waste of money, but it still looks as good as new and I never have to worry about cramming things in because I bought one larger than I thought I'd need." |Tom Chaplin|

"Use a lightweight suitcase, like those from Samsonite, because they're virtually indestructible and have "smart" technology like charging ports." |Rankin|

From the content analysis about the tenth research question (Travel essentials?), by the Excerpts from celebrities, we can see that most celebrities rank their iPhones followed by books or audio books, among other objects. Excerpts from celebrities' responses are given below.

"My phone, as I read scripts on it, and notebooks, in which I write down thoughts about work." |Eleanor Tomlinson|

"My iPhone because it has all my music on it, decent headphones and a good book, or four. I take books I can leave behind for others to enjoy." |Ian Rankin|

"Credit cards, audio books and podcasts." |Rankin|

According to the excerpts from celebrities, the content analysis about the eleventh research question ((What do you hate about travelling?)), revealed some of the negative emotions celebrities have about traveling specially regarding the security procedures at airports, versus to the positive emotions they stated in previous responses. Excerpts from celebrities' responses are given below.

"When hotels overlook the little details, which can make a difference between a good stay and a great stay. And travelling through American airports: it took me three hours to clear through Atlanta last time. Infuriating." |Tom Chaplin|

"I hate airports with all their red tape, and the power customs officials seem to like, to lord over travellers. I love travelling by train – it's much less hassle." |Dan Snow|

"The night before I go away. I'm not sure why but I get quite anxious. It dissipates once I'm there and settle in." |Mathew Horne|

CONCLUSIONS

This paper highlights the role of celebrity travel narratives as they engage in eWOM recommendations to destinations, hotels, restaurants and experiences. People perceive these celebrities endorsers as role models and opinion makers. Therefore, tourism operators and managers must acknowledge their comments and design new tourism products that meet their expectations.

The content analysis of the interviews allow researchers to identify some patterns and future trends. Some celebrities have vivid childhood memories of significant events linked to tourism journeys. Negative circumstances of childhood may also inhibit the preference for similar destinations, cities or activities.

Emotions and sensorial memories involving eating as Kauppinen-Räsänen, Gummerus and Lehtola (2013) recognized are key elements for designing and co-creating new experiences. Customers' opinions and reviews about tourism service companies are a crucial co-creation tool for customers (Pera, 2017; Wang and Fesenmaier, 2004). The travel experience of a single customer is now accessible to multitudinous community members and, subsequently, shapes their future purchase behaviour.

On the other hand, it seems that the logistic issues related with the airport's security procedures, or how to spend the waiting time for flight are the major concerns and stress sources in the tourists' journey.

Further research should assess the relationship between the variables related with qualitative content analysis and the metrics regarding the engagement and social media eWOM (eg. number of likes and shares).

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THE INTEGRATIVE MODEL OF ONLINE RELATIONSHIP QUALITY

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ABSTRACT

Previous studies examined relationship quality and its determinants and dimensions within specific contexts, thus creating a highly fragmented view on relationship quality. This study synthesized these fragments and suggests an overall model of online relationship quality to be used as a foundation for future research regardless of the industry, type of the organisation, market segment or country. The integrative model of online relationship quality was developed highlighting all the previously validated determinates and dimensions of this debated concept and listing all possible moderators that can influence relationship quality in any type of online contexts. Besides providing an integrative base for academic researchers in the domain of relationship quality, this study offers an online relationship quality matrix for business practitioners. This matrix highlights the main connections between determinants and dimensions of online relationship quality along with the relative strength of these connections, so managers can see clearly the links between antecedents and outcomes, which can assist them building sharper customer relationship strategies for online interactions.

Keywords: Relationship quality, online relationship quality, satisfaction, commitment, trust, relationship characteristics, website characteristics.

INTRODUCTION

In today's fast-paced and highly competitive environment, where customers are looking for instant satisfaction and have prompt access to vast number of alternative sellers online, businesses are increasingly dependent on strong relationships with their customers to achieve success (Morgan and Hunt 1994). The recent evolution of information and communication technologies empowered not only customers, but also enabled companies to offer their services and sell their products online providing them with a significant competitive advantage over others operating only offline. This online 'revolution' created more opportunities for dynamic interaction between the company and its customers, furthermore, it has contributed greatly to reduce the complexity of the transaction and created the possibility for increased level of customisation and sophisticated personalisation (Asgari

Hamid, Asgari and Mousavipour, 2012). The link between online relationship quality and customer loyalty, the ultimate marketing goal (Kotler, Armstrong, Harris and Piercy, 2013), has never been so clear (Walsh, Hennig-Thurau, Sassenber and Bornemann, 2009).

There is substantial literature (e.g. Athanasopoulou, 2009; Brun et al., 2014, 2016; Carr, 2006; Hennig-Thurau and Klee, 1997; Vieira et al., 2008) on how companies can strengthen their customer relations i.e. enhance the relationship quality both in online and in traditional contexts. However, the available literature is critically fragmented. Not only there is no consensus on the definition of what relationship quality means, and what are its main building blocks, but there is also a fierce disagreement on what are the main factors that shapes it. Athanasopoulou (2009) suggests that this strong disagreement is rooted in the fact that relationships quality is highly context specific. This means that a specific environment changes the factors that influence relationship quality, and the relative impact of the determinants is perceived differently in different an industry, organizational environment, culture or in a specific market segment. Thus, Athanasopoulou (2009) recommends that for academics, “the nature of online relationships needs further studying in order to create an established framework for future research in this very complex field” (p. 604) and Vieira, et al. (2008) and Woo and Ennew (2004) add that in order make progress one must first accept a general view of the concept. Following these recommendations, this study conceptualizes an integrative model for online relationship quality based on the synthesis of the available but highly fragmented literature. This model is suggested as a foundation for future research, as it accumulates all the validated determinants and dimensions of online relationship quality, and it also incorporates all the possible moderators. Thus, it can be a very useful starting point to build on regardless of the specific context studied.

RELATIONSHIP QUALITY

The concept of relationship quality has been studied since the 1990s, however there is still no consensus among the academics about its conceptualization. Relationship quality is considered as one of the pillars of relationship marketing (Gummesson, 2002; Hennig-Thurau, Langer and Hansen, 2001) and, it has gained considerable importance as a measure of successful business relationships (Palmatier et al., 2006).

Relationship quality reflects the nature of the relationship between the company and its customers (Hennig-Thurau et al., 2002; Smith, 1998). Relationship quality, as per Crosby et al. (1990), means “that the customer is able to rely on the salesperson's integrity and has confidence in the salesperson's future performance because the level of past performance has been consistently satisfactory” (p. 70). Kim and Cha (2002) argue that relationship quality refers to the customers’ perceptions and evaluations of the service provided, communication and conduct of the company’s representative. For

Liu, Li and Zhang (2010), relationship quality is the extent of the parties' willingness to pursue common interests, mutual understanding, reciprocity, loyalty and long-term cooperation. According to Keating, Rugimbana and Quazi (2003), relationship quality corresponds to the quality of the interactions between the parties (company and its customers), and is viewed as accumulated value of the interactions. Crosby et al. (1990) refers to relationship quality as a complex and multidimensional construct, as it is can be understood as the total value of a relationship reflecting all the different phases, which it passes through (Palmatier et al., 2006).

By reviewing all the above definitions and descriptions of relationship quality, it can be clearly seen, there is no consensus regarding the definition of this concept. According to Hennig-Thurau (2000), one of the possible reasons for this is that there are several different types of relationships in various markets that can be studied and drawn conclusions from. However, the authors do not agree on the definition of relationship quality, all of them stress that there are many benefits associated with this concept, namely loyalty, collaboration, operational improvement, safety and business continuity (Akrouf, 2014).

Dimensions of Relationship Quality

Relationship quality is a debated concept, it manifests not only in the lack of consensus regarding its conceptualization, but also, regarding the definition of the dimensions that build it (Hennig-Thurau et al., 2002; Huntley, 2006). For example, according to Dwyer et al. (1987), Crosby et al. (1990), Moorman et al. (1992) as well as Wray, Palmer and Bejou (1994), trust and satisfaction are the main domains of relationship quality. While, Woo and Ennew (2004) and Song, Su and Liu (2012) argue that cooperation and the environment are the most relevant aspects of relationship quality. Similarly, Rauyruen and Miller (2007) establish that trust, commitment and satisfaction are the key facades and add also the quality of service, but Dorsch et al. (1998) suggest that besides trust, commitment, satisfaction, the essential additions are: customer orientation, minimal opportunism and ethical profile. Also, Smith (1998), Hennig-Thurau et al. (2002), Ndubisi (2014) and Lai (2014) propose that trust, commitment and satisfaction are the main pillars of relationship quality. While, Tsai and Hung (2016) exclude commitment and satisfaction and argue that the main dimensions of this concept should only be based on trust, that flow from cooperation, adaptation and communication.

Based on the disagreement above, it can be concluded that the considered dimensions of relationship quality are diverse and in essence quite different. Woo and Ennew (2004) reasons that it is because there are various definitions of relationship quality, which lead to inconsistency in theorizing regarding the constructs that build it. These authors also advocate that the nature of the dimensions of relationship quality depends on the specific contexts that the relationship is studied, and the different contexts provide different set of constructs.

Despite of the fact that the list of constructs is grouped in a different way, there seems to be a set of dimensions that majority of the studies consider as building blocks of relationship quality: trust, commitment and satisfaction (Athanasopoulou, 2009; Vieira et al., 2008). Building on this notion, this study accepts the relevance and foundational nature of trust, commitment and satisfaction in studying relationship quality, and builds its research on this basis (Table 1).

Authors	Dimensions of Relationship Quality
Dorsh et al. (1998)	Trust Satisfaction Commitment Customer orientation Minimal opportunism Ethical conduct
Smith (1998), Hennig-Thurau et al. (2002), Ulaga and Eggert (2006), Moliner et al. (2007), Vieira, et al. (2008), De Cannière et al. (2010), Rafiq et al. (2013), Ndubisi (2014), Lai (2014), Athanasopoulou (2009)	Trust Satisfaction Commitment
Dwyer et al. (1987), Crosby et al. (1990), Moorman et al. (1992), Wray at al. (1994)	Trust Satisfaction
Woo and Ennew (2004), Song at al. (2012)	Cooperation Environment
Tsai and Hung (2016)	Trust
Rauyrueen and Miller (2007)	Trust Satisfaction Commitment Service quality

Table 1 - Relationship Quality Dimensions

Trust

Trust is generally considered as a fundamental element to develop and maintain long-term relationships (Crosby et al., 1990; Dwyer et al., 1987; Palmatier et al., 2006). Trust is critical in a variety of relationships, whether interpersonal or inter-institutional, and is an essential factor in determining relationship quality (Yu and Chen, 2014).

According to Bart, Shankar, Sultan and Urban (2005), trust requires the willingness of one of the actors in the relationship to accept vulnerability and dependence on the other side, with the expectation that they can achieve a particular goal. Aurier and Lanauze (2012) define trust as the belief that the other party will behave in such a way that expectations will be exceeded, interests will be met, and this pattern will be maintained in the long run.

The concept of trust encompasses three other important dimensions: honesty, benevolence (the belief that the other party in the relationship will show benevolence in his actions) and competence (the belief that the other actor will be competent to act in favour of the relationship) (Fynes, Búrca and Voss, 2005; Moorman et al., 1992; Vidal, 2012).

Commitment

Moorman et al. (1992) consider that commitment is essential to maintain a relationship, and it is a key factor in pursuing a successful outcome. Dwyer et al. (1987), in line with Palmatier (2008) and Bobot (2011), propose that the essence of the commitment is the adoption of a long-term orientation that accepts to make short-term sacrifices for long-term benefits. Hennig-Thurau and Klee (1997) describe this concept of commitment as a long-term customer orientation adopted on an on-going basis, and grounded in an emotional bond and the belief that remaining in the relationship would produce greater net benefits than ending it. Roberts et al. (2003) considers that compromise is the main dimension that distinguishes successful relationships from failures, since it is through the compromise that the parties solve the problems of the relationship. Compromise is when one party in the relationship is willing to make extra effort and sacrifice certain personal benefits to maintain the relationship. Thus, committed stakeholders are the most tolerant towards each other (Sun, 2010).

Satisfaction

This dimension of relationship quality represents the emotional perspective of the relationship (Palmatier et al., 2006) and, according to Akrouit (2014), it cannot “function” in the absence of the remaining dimensions (trust and commitment) in building loyalty and lasting relationship (Bettencourt, 1997).

The conceptualization of satisfaction has been widely and fiercely discussed (Hennig-Thurau et al., 2002), but generally refers to the post-purchase process and it is based on the consumers' evaluation of the performance of the acquired product/service. For Crosby et al. (1990) and Dwyer et al. (1987) this concept represents a positive affective/emotional evaluation based on the overall assessment of the performance of the other party in the relationship. So, satisfaction can be described as the sum of the positive and negative outcomes of the relationship. Roberts, Varki and Brodie (2003) stresses the cognitive aspect of this concept, arguing that satisfaction is a cognitive assessment, based on the personal experience of each of the parties regarding all the events occurred in the relationship. So, the relevance of satisfaction within the framework of relationship quality is based on the notion that it offers a summary assessment of past interactions between the parties, and this summary projects expectations for the future interactions; thus, in total, it provides a general evaluation of the relationship (Crosby et al., 1990; Roberts et al., 2003).

Determinants of Relationship Quality

Vieira et al. (2008) proposed a conceptual model of relationship quality based on their review of relationship quality literature. The conceptual model displays four determinant factors (antecedents) of relationship quality: mutual goals, communication, domain expertise, and relational value, as deemed the most important but “additional determinants may need to be included in order to cope with the context specificity of relationship quality” (p. 280).

The concept of mutual goals was originally defined by Wilson (1995) as the degree to which parties share goals that can only be achieved through joint action and maintenance of the relationship. The existence of goal congruity offers the right conditions for both parties to benefit from participating in a relationship (McQuiston, 2001). This concept of mutual goals prompts the development of trust and, consequently, increases satisfaction with the relationship (Vieira et al., 2008).

Communication is next factor driving relationship quality. It has been considered the most basic activity during the exchange relationship, and essential to establish interaction between the parties involved (Williams et al. 1990). Effective communication enhances trust, and so, plays a crucial role in influencing relationship quality (Crosby et al., 1990; Lagace, Dahlstrom and Gassenheimer, 1991; Morgan and Hunt 1994; Parsons, 2002).

Other most commonly used driver of relationship quality is the salesperson’s domain expertise (Crosby et al. 1990; Lagace et al. 1991; Parsons 2002). It is defined as the customer’s perception of the salesperson’s level of technical knowledge and his ability to demonstrate such knowledge (Crosby et al. al., 1990; Parsons, 2002). Empirical research has shown that knowledgeable salespeople are more likely to engender trust in their customers and more effectively meet customer needs, which suggests that expertise influences relationship quality (Parsons, 2002).

Finally, relational value is also another key element in determining relationship quality. Relational value refers to the party’s expected net benefits from a relationship (Dwyer et al., 1987), balancing relational benefits and sacrifices (Gronroos, 2000). According to Hennig-Thurau et al. (2002) and Morgan and Hunt (1994), the parties stay in relationships as long as there are expectations of receiving the promised benefits, which are not only economical but also social benefits (Hennig-Thurau et al., 2002). Empirical work confirms that relationship-specific investment leads to greater commitment (Palmatier et al. 2007).

Links Between the Determinants and the Dimensions of Relationship Quality

The below matrix displays the specific links between the determinants (antecedents) and the dimensions of relationship quality (Table 2), providing a snap-shot view of what dimensions of the relationship can each influencing factor improve. These interconnections, while provide valuable insight for academia, give a very practical guideline for practitioners on how to enhance and in some cases recover relationship quality with customers.

	Dimensions of Relationship Quality			
Determinants of Relationship Quality*		Trust	Satisfaction	Commitment
	Mutual Goals	P+	P-	
	Communication	P	P	
	Domain Expertise	P		
	Relational Value			P

* positive (P), strongly positive (P+), slightly or indirectly positive (P-)

Table 2 - Influence of the determinants (antecedents) of relationship quality on the dimensions of relationship quality in the traditional (face-to-face) setting

ONLINE RELATIONSHIP QUALITY

Online relationship quality is an integrative and multidimensional concept just as relationship quality in the offline context (Brun, Rajaobelina and Ricard, 2014). Asgari et al. (2012) also conceptualise online relationship quality in the same way as offline relationship quality, however, Vieira et al. (2008) argue that the determinants of online relationship quality are fewer than that in the offline context, comprising of communication, transactional and relational functions only. The communication function refers to the interactions between the online company and its customer. This function has a prominent role in the online context due to the recent technological advancements, as it created more opportunities for customer-company contact (Asgari et al., 2012). From transactional point of view, Asgari et al. (2012) suggest that several factors influence relationship quality from the accessibility, security and design of the website, through the content available on the website, to the complexity of the purchase. While the relational function encompasses online service quality and the level of personalise ability of the website (Asgari et al., 2012). Taking these research findings into consideration, online and offline relationships are quite distinct, mainly due to physical distance and the different media used, however, the main principles of relationship marketing, in particular, relationship quality, can and should be taken and applied from the offline to online context (Ching and Ellis, 2006).

Dimensions of Online Relationship Quality

Just as in offline context, online relationship quality is also comprised of several dimensions (Asgari, et al., 2012; Rafiq et al., 2013). While, Asgari, et al. (2012) suggest that online relationship quality consists of only online satisfaction (e-satisfaction) and trust (e-trust), Walsh et al. (2009), Rafiq et al. (2013), Aggarwal and Bhardwaj (2016) as well as Vize, Coughlan, Keneedy and Ellis-Chadwick (2016) argue that the dimensions of relationship quality match in both online and offline environments,

namely, trust, commitment and satisfaction. Walsh et al. (2009), clarify this contradiction by suggesting that the difference between online and offline relationship quality, their relevance and impact is rooted in the fact that the interaction between the customer and the company's representative happens in two different environments.

E-trust

E-trust is described as the level of trust and conviction that a customer has regarding the success of the online purchase (Ribbink, Riel, Liljander and Streukens, 2004). E-trust is a particularly relevant dimension of relationship quality in the online context, where customers increasingly rely on the Internet for information and purchase, and online contact increasingly contributes to customer loyalty (Shankar, Smith and Rangaswamy, 2003).

According to Bart, et al. (2005), trust in the offline context differs considerably from trust in the online context, as the latter relies solely on the online website through the use of technology. However, these authors also suggest that the interaction between a customer and a website is similar to the personal interaction in a physical store, as trust is developed based on the interaction with the company representative in the former case and with website in the online setting. Also, similarly to the offline environment, e-trust is established based on a set of customer perceptions compared to customer expectations about the website. Alike Bart, et al. (2005), Mukherjee and Nath (2007) also consider the concept of trust being different in the two different environments, and point out several aspects justifying this difference, e.g., the absence of human contact; the physical distance between the actors (customer and seller) and between the customer and the product. Li, Jiang and Wu (2014) too supports that this dimension of relationship quality is more relevant in the online environment than offline, as consumers perceive more inherent risks in online purchase, and associate these risks with the lack of physical contact with both the product(s) and the seller(s).

Brun et al., (2014) conceptualize online trust based on the three dimensions of competence (the individual's perception of the partner's skills and abilities), integrity (the belief that the trusted party adheres to accepted rules of conduct, such as honesty and keeping promises) and benevolence (seeking joint gains and being concerned about the other's welfare).

E-commitment

E-commitment has not been considered as relevant in the online setting as it has been for the offline context (Brun et al., 2016), however, Chung and Shin (2010) highlight the importance of e-commitment in both environments.

Ching and Ellis (2006) also support the relevance of e-commitment in the online settings by arguing that online customers are less likely to develop loyalty to the company or the brand due to the high anonymity as well as physical and social distance between the parties involved in the purchase

process. Therefore, the strong sense of commitment is essential for developing and maintaining online relationships (Brun et al., 2016).

Commitment represents “the consumer’s psychological attachment toward the online service provider, along with his/her willingness to maintain the customer-firm relationship” (Liang and Chen, 2009, p. 222). In the offline context, commitment is conceptualized as having three dimensions: affective, calculative and normative, while majority of the studies examining online settings usually focus only on the first two (Brun et al., 2014). However, to ensure the full complexity of commitment in online relationship quality, the three dimensions of affective commitment, normative commitment and calculative (or continuance) commitment should be taken into account (Brun et al., 2014). Affective commitment represents the psychological bond that emerges from favourable feelings toward a firm (Gruen et al., 2000), and develops because the consumer identifies with the company and likes the company’s web site (Meyer and Herscovitch, 2001). Calculative commitment results from a rational and economic calculation (Meyer and Herscovitch, 2001), like it may be difficult for customers to stop using a company’s web site because, for example, they have invested heavily in its use or there are no better alternatives available (Brun et al., 2014). Normative commitment is demonstrated through behaviours rising from a sense of obligation (Gruen et al., 2000), like customers may feel an obligation to continue using a company’s web site because of the benefits previously received (Brun et al., 2014).

E-satisfaction

Evanschitzky, Iyer, Hesse and Ahlert (2004) as well as Szymanski and Hise (2000) suggest that e-satisfaction manifests when clients compare the experience of the online service with offline service provision. Anderson and Srinivasan (2003) define e-satisfaction as customer contentment with the purchase experience at a particular online company. According to McKinney et al. (2002) and Sanchez-Franco (2009), e-satisfaction is associated with the characteristics of the website as the customers perceive it, because there is no other contact point in the online environment. Shankar, Smith and Rangaswamy (2003) have found that the service encounter satisfaction is not statistically different online versus offline, however, overall satisfaction (the cumulative effect of a set of discrete service encounters or transactions with the service provider over a period of time) is higher online than offline. These authors also list the main determinants of customer satisfaction offline, such as ease of obtaining information, frequency of use, service performance and prior experience. Based on their research findings Shankar, Smith and Rangaswamy (2003) suggest that in the online setting satisfaction is influenced, besides the actual service received, ease of obtaining information has a stronger positive effect on overall satisfaction online than offline; frequency of use has a lesser negative effect on overall satisfaction online than offline; and the depth of information at the website

increases service encounter satisfaction, and from there contributes to overall satisfaction with the online service provider.

Determinants of Online Relationship Quality

Brun, Rajaobelina and Ricard (2016) argue that there are several factors that contribute to online relationship quality, and that these factors can be divided into relational characteristics and website characteristics. Relational characteristics resemble the factors of the offline context, which also coincide with and influence the online context (Ching and Ellis, 2006). Website characteristics are composed of factors derived exclusively from the online environment (Chung and Shin, 2010).

Brun et al. (2016) suggest that relational characteristics that promote online relationship quality are communication, conflicts, and the perceived benefits of the relationship. With regards to the characteristics of the website, Brun et al. (2016) have identified convenience, website design, information quality, ease of use, and security/privacy as the most relevant factors contributing to online relationship quality (Table 3).

Relational Characteristics	
Communication	It influences positively the dimensions of online relationship quality, namely online trust (Mukherjee and Nath, 2007) and online satisfaction (Chung and Shin) and also has a positive impact on offline commitment (Palmatier et al., 2006). Although not very significant in its overall positive impact, it exerts significant positive impact on online relationship quality for women (Brun et al., 2016).
Conflict	It negatively influences all dimensions (Palmatier et al., 2006).
Perceived Benefits of Relationship	It influences positively the three dimensions of online relationship quality: trust, commitment and satisfaction (Palmatier et al., 2006).
Website Characteristics	
Convenience	It positively influences trust and commitment, in online context Toufaily and Perrien, 2006). While it contributes to overall online relationship quality, it is found to be the least important antecedent of it (Brun et al., 2016).
Website design	It directly influences satisfaction, in an online context, but indirectly also has an impact on trust and commitment (Chung and Shin, 2010).
Quality of Information (depth of information)	It influences trust (Ladhari and Leclerc, 2013), commitment (Bauer, Grether, and Leach, 2002) and satisfaction (Ladhari and Leclerc, 2013) in online context. The depth of information at the website increases service encounter satisfaction, which increases overall satisfaction (Shankar et al., 2003).
Ease of Use	It is the most important antecedent of online relationship quality (Brun et al., 2016). It influences positively online satisfaction (Casalo, Flavian, and Guinaliu, 2008), online trust (Flavian, Guinaliu, and Gurrea, 2006) and, despite the lower intensity,

	online commitment (Brun et al., 2016). Ease of obtaining information has a stronger effect on overall satisfaction (Shankar et al., 2003).
Security/privacy	It directly influences satisfaction, in an online context, but indirectly also has an impact on online trust and online commitment (Chung and Shin, 2010).

Table 3 – Determinants of online relationship quality

According Brun et al. (2016), website characteristics are more important for developing enduring online relationships than the relationship characteristics, because there is no physical contact during the online experience, so the customer relies only on the website's information content, system design, and technology quality (McKinney, Yoon, and Zahedi, 2002). However, all of these factors, whether they are part of the website's feature set or relational characteristics, influence the dimensions of relationship quality and so, can be considered as antecedents of it (Brun et al., 2016). The ease of use, website design and security/privacy have the greatest total impact on online relationship quality, while perceived benefits, conflict, convenience and communication have the least impact on the overall relationship quality (Brun et al., 2016).

Links Between the Determinants and the Dimensions of Online Relationship Quality

The below matrix (Table 4) displays the impact that each determinant of online relationship quality has on each dimension: e-trust, e-satisfaction and e-commitment. Thus, it provides a practical guide on cause-effect correlations within online customer relationships.

	Dimensions of Online Relationship Quality		
	E-Trust	E-Satisfaction	E-Commitment
Relational Determinant of Online Relationship Quality			
Communication	P	P	P
Conflict	N+	N+	N+
Perceived Benefits of Relationship	P	P	P
Website-related Determinant of Online Relationship Quality			
Convenience	P	P-	P
Website design	P-	P+	P-
Quality of Information	P	P+	P
Ease of Use	P+	P+	P-
Security/privacy	P-	P+	P-

*negative (N), strongly negative (N+), positive (P), strongly positive (P+), slightly or indirectly positive (P-)

Table 4 - Influence of the determinants on the dimensions of relationship quality in the online environment

Moderators of Online Relationship Quality

Athanasopoulou (2009) found in her literature review on relationship quality that only a fraction of the studies (4 out of 47) incorporate moderating variables, however their impact can be significant.

Gender is highlighted as one of the most impactful moderator, since males and females tend to differ in relationship quality perceptions and in the types of antecedents that influence these perceptions (Athanasopoulou, 2009). Ease of use, the most important antecedent of online relationship quality, is particularly critical for women, and communication has significant positive impact on online relationship quality among women (Brun et al., 2016).

Also, the age of the customers as moderator of relationship quality found to be relevant by Obal and Kunz (2013) advocating for significant difference between Generation Y and Baby Boomers in terms of e-trust and how it built. Brun et al., (2016) discovered that the impact of perceived relationship benefits is stronger for Generation Y than for Baby Boomers, and security/privacy is not significant for Generation Y, but it is for Baby Boomers.

Product importance and in general the industry context may also moderate the links within the relationship quality model especially, for example, when the supplied product is critical for the production of the end product, or when accurate service delivery is critical for the customer such as in medical or legal services (Athanasopoulou, 2009). In the comparison of three different industries Gómez, González-Díaz, Martín-Consuegra and Molina (2017) also conclude that the main benefits perceived of relationship quality is specific regarding different services.

The influence of national culture on cross-national buyer-seller relationship has already been identified as a critical (Dash, Bruning and Guin, 2006). High mutual and symmetric interdependence in a buyer-seller relationship is a crucial factor in building trust and commitment (e.g. Kumar et al., 1995; Geysken et al., 1996), but culture-determined power distance moderates this interdependence, and from there affects relationship quality (Dash, Bruning and Guin, 2006).

The most important moderator, however, according to Athanasopoulou (2009), is the age of the relationship, because relationship quality changes with time and as it ripens it can possibly turn to loyalty.

Proposed Conceptual Model

The literature on the determinants and dimensions of online relationship quality is fragmented focusing only some specific links between the determinants and the dimension of relationship quality. Also, hardly any of the studies incorporate the moderators of relationship quality, which found to have significant influence on the overall perception of online relationship quality (Athanasopoulou, 2009; Brun et al, 2016). Furthermore, none of the studies considered multiple moderators and their individual effect on the dimensions on relationship quality. So, this study puts the pieces together and

conceptualizes an integrative online relationship quality model that considers not only previously verified determinants and dimensions of online relationship quality, but also an informed list of moderators that can influence it in the online context. The aim is to advance both academic research in online relationship quality domain, and to offer valuable insight for business professionals providing online services to better care for their customers in this digital age increasing their satisfaction, trust and commitment and ultimately gaining their loyalty.

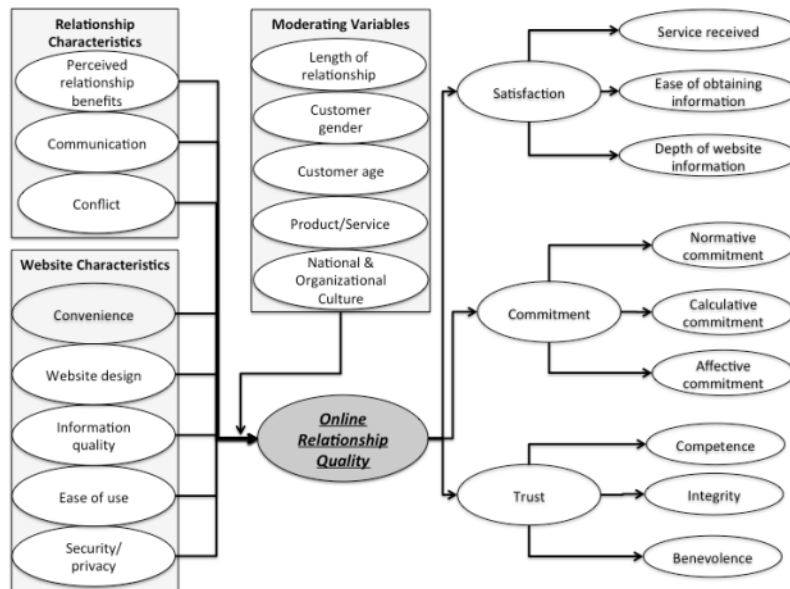


Figure 1 – Integrative online relationship quality model

CONCLUSION

This study proposed an inclusive relationship quality model for the online context built from the fragmented previous literature, where there is hardly any consensus about the definition of relationship quality nevertheless their antecedents, building blocks and moderators. The proposed conceptual model is a generic display of the links and cause-effect affiliations of online relationship quality synthesized from different industries, countries and various market segments. Following Athanasopoulou's (2009) conclusion that the list of variables of relationship quality (determinants, dimensions and moderators) is always context-specific, or building on the findings of this study that the variables of relationship quality are significantly different in online and in traditional contexts (Table 1 - 4) the proposed model (Figure 1) is suggested to be considered for future research as a foundation, and modified based on the specific nature of the context studied. It is expected to be significantly different in various business contexts (B2B or B2C), in various industries and regarding specific services/products as well as in different cultural environment.

However, there are vast differences in the determinants and list of moderators that influence relationship quality, it seems accepted by the majority of the researchers (Table 1) that the core

dimensions of relationship quality, regardless of the industry or online/offline context is the same: trust, satisfaction and commitment. Based on the above analysis of the literature, this study urges future researchers of online relationship quality to consider these main dimensions of the concept, in order to achieve a wider and deeper assessment of different industries and contexts, and realize the benefits of direct comparison.

The main value of the study, besides the inclusive online relationship quality model, is the online relationship quality matrix (Table 4). It collects and points out the main connections between antecedents and dimensions of relationship quality along with the relative strength of these connections. This summary encompasses valuable insight for the business practice deciphering what strategies the company can focus to strengthen a specific feature of their customer relationship. So, rather than *trying* their best and *hoping* for the best, acting *purposefully* and expecting *known* results.

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SILOS MENTALITY IN HEALTHCARE SERVICES

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ABSTRACT

In the last decades many authors have referred to the importance of silo mentality in healthcare. The functioning of complex organizations such as hospitals requires high levels of understanding and cooperation between professional groups with different professional pathways and expectations. Even though silo mentality appears to be a significant challenge to organizations, employees and clients, there is no empirically supported theoretical framework and a conceptual clarification of the term is in need.

Silo mentality is a consequence of the organizational structure, with departments divided functionally and professionally, and with insufficient communication channels. The silo configuration is essentially matrixial with horizontal silos, the services and the professional classes; and vertical silos, the different hierarchical levels. Silo mentality compromises the efficiency of the organization and promotes conflicts, redundancy and waste. It distresses and demotivates the employees and frustrates clients who receive worse care and do not have their problems solved on time.

Silo mentality in healthcare can be defined as the set of individual or group mindsets that can cause divisions inside a health organization and that can result in the creation of barriers to communication and the development of disjointed work processes with negative consequences to the organization, employees and clients.

These findings suggest that, on the one hand, the benefits of the present healthcare organizations structure should be evaluated and, on the other hand, that strategies to mitigate its insufficiencies in communication, cooperation and work integration should be discussed.

Key-words: corporate culture, healthcare, public administration, silo mentality.

INTRODUCTION

In the last two decades only some authors study the importance of the silo mentality in health care (Hajek, 2013; Kumarasamy & Sanfilippo, 2015; Vatanpour, Khorramnia, & Forutan, 2013), since the normal functioning of organizations with complexity of

hospitals requires very high levels of understanding and cooperation between professional groups with different paths and expectations (Vatanpour et al., 2013) .

With the technical progress and the medical specialization the number of services and departments in the hospitals increased. The competition between units has increased and their unwillingness to share information as well as the way of thinking of its employees, led to a decrease in efficiency and contributed not only to the loss of trust between professionals but also a productive culture (Langley & Warner, 1990; Waldman, 2007) .

The silos can be defined as groups that tend to work by themselves, as an autonomous unit, within an organization, conditioning the interaction of the members of the different units (Vatanpour et al., 2013). If in a farm the silos prevent the different cereals from mixing in an organization lead to a lower productivity, since employees are more reluctant to cooperate and integrate their work into the various functions within the organization (Chopra, 2001, cit. by Vatanpour et al., 2013) . These arise not only in organizations, but also across disciplines, occupations or even methodologies (Fenwick, Seville, Brunsdon, & Resilient, 2009).

The term silo mentality is often used to describe individual or group beliefs that can cause division and whose most common outcome is the creation of barriers to communication and the development of disjointed work processes. This type of mentality can reduce motivation and generate indifference towards the needs of others (Vatanpour et al., 2013). Thus, the emphasis must be placed on the non-physical nature of the barriers.

Although the silo mentality in health services seems to be a significant problem for the organization, employees and users, literature on the subject is scarce. It lacks not only an empirically supported theoretical framework but also a conceptual clarification of the term itself, since terminology plays a central role in communicating what we think about a subject, how we approach it and how we deal with it (Kodner & Spreuwenberg, 2002).

LITERATURE REVIEW

It was Neebe in 1987, the first to use the concept of silo as a metaphor for organizational behavior (Cilliers & Greyvenstein, 2012), making parallel between the grain silos and off manner, isolated and with few roads, as the various parts of some hosts eggs often work. Agricultural silos are large towers, usually without windows, used for storage of grains. These structures are dispersed, being understood that a silo conti cereals can hardly migrate or be moved from one tower to the other (Cromity & de Stricker, 2011).

The different internal cultures of each silo would hinder communication and raise difficulties in cooperation with other silos within the organization as competitors, so as to ensure the silo's

sovereignty and its continuity (AME, 1988). Thus, the classical functions of a manufacturing company: manufacturing, engineering, R & D, marketing, accounting, finance and human resources would be isolated in internal and hierarchical silos.

The silo mentality can be defined as the set of individual or group beliefs potentially causing division within an organization and whose most common result is the creation of barriers to communication and the sharing of information and the development of disjointed working processes (Fenwick et al., 2009). This type of mentality can reduce motivation and generate indifference towards the needs of others (Vatanpour et al., 2013). Cilliers and Greyvenstein (2012), instead of looking for silo as conscious, objective and rational entities, described them using a different paradigm, the psychoanalysis. The silos would represent a cleavage, an invisible barrier capable of containing the collective unconscious of the team and organizational fantasies and emotions. In one way or another, the emphasis is placed on the non-physical nature of the barriers.

Causes of silo mentality

Individual level

Whether within the organization, among organizations or among disciplines, silos have their genesis in human behavior (Fenwick et al., 2009). Under pressure from various interests, conflicts and expectations, often unexpressed (Stone, 2004), there is a natural tendency for isolation and consequent establishment of barriers. These behavioral barriers are in turn the result of the individual's attitudes, motivations, age, environment and culture (Cromity & de Stricker, 2011). The various actors, and the very business areas they represent, have their own agenda, often hidden, the interest of the organization comes naturally after personal interest (Schütz & Bloch, 2006).

Sharing is also part of human nature, and this often occurs spontaneously, whether it is in a meeting, having coffee, or simply having a conversation. Still, if the sharing of information comes into conflict with personal interests, or just time consuming, there is no incentive, to the contrary, to its realization. Add to this the fact that for the most part there is no reward system that encourages this behavior (Cromity & de Stricker, 2011).

It is also important to note that inadequate training and development in interpersonal skills often results in inappropriate communication styles and the inability to build cooperative working relationships (Stone, 2004).

Group level

Functional silos naturally appear as an organization grows and employees specialize in standard functions: production, sales, etc.

The different professions present themselves to the collaborator as a safer and nobler cause, and professionals tend to identify more closely with themselves than with organizations. If a particular function can not be identified by a letter or a technique for at least the security status and are contained in the description of a job. Among professionals with a particular status emerges another layer of silos, for example, between laborers or liberal professionals trade unions and professional orders are established respectively. These distinctions tend to exacerbate communication problems (AME, 1988).

Due to the functional division of labor, any large organization is divided into departments: marketing, product development, sales, etc. The relationship between these is sometimes marked by the silo mentality, since there is no exchange of information and a competitive mentality of the "us against them" type emerges. Over time, departments have a specific culture, with points of view, ways of thinking, work methodologies, goals, values, language and time management, which contribute to the formation and consolidation of these identities and cultures within departments and that just build barriers to inter - departmental communication (Barmyer & Sachseneder, 2013).

Problems tend to arise when these different cultures are not aligned, both among themselves and with the organization's goals (Fenwick et al., 2009). Silos often create an environment in which departmental management interests may take precedent and in relation to the internal well-being of the organization (Stone, 2004). Given the need to distribute funding, and other resources, perhaps more important, power and authority by different departments, disputes are inevitably frequent, often being bitterly caught and with consequences for the public image of the organization (Fenwick et al., 2009). Often it is the compensation itself for achieving certain goals that reinforce non-cooperative behaviors and silo mentality (Vatanpour et al., 2013).

Systematic interaction tendency with the same elements, enhanced by retention of employees in the same function during years (many times throughout all his career), which leads to the development of preferred internal alliances (Sy & Côté, 2004). It is therefore not surprising that employees acquire a pattern of behavior that benefits their unity and those that are close to them, often with prejudice to the organization as a whole (Sy & Côté, 2004). This is enhanced by the fact that employees report to his department managers, who typically are responsible for promotion and incentives (Vatanpour et al., 2013).

For all these reasons, we can claim that silos are not physical, they exist mainly in the minds of employees, who have a shared impression of reality. They believe that if they keep others away they will be able to maintain their environment and their pleasurable reality, create an area of comfort, a barrier that protects them from the outside world, since others "are not like us" (Diamond, Allcorn, & Stein, 2004). With this over-identification with the department, there is a narrowing of

horizons and excessive reactivity to all *inputs* or *feedbacks* from outside, that are interpreted as attacks and the perfect pretext for victimization. Employees individually feel that they are not responsible for any situation and that the causes of the problems are always outside their control (Vatanpour et al., 2013).

Organization level

There are good reasons for a company to organize itself by functions. Technical proficiency comes from specialization. By concentrating knowledge on a particular problem in one place this will be addressed more quickly and efficiently. Specialization can still get to the end of the restricted operator to a single mechanism and eventually limit the technical progress, economic and even personal development of the employee. It is only feasible when there are economies of scale, since enormous infrastructure is needed to generate profits that bear the costs associated with this type of organization (AME, 1988).

When the organizational structures are rigid around the functional areas is necessary to take a much greater effort when interdepartmental work is necessary (Fenwick et al., 2009). Different administrative processes, work organization, modes of allocation resources and different views on who should be responsible for certain task often lead to conflict. The organization's own culture, which tends to be competitive rather than team-oriented, appears as a barrier (Stone, 2004).

The silos arise as a symptom of dysfunction in the existing organization (Fenwick et al., 2009). According to Carrol (Carrol, 1998, by Fenwick et al., 2009), employees of different hierarchical levels have different visions and may have difficulty communicating. This is often because the policies and procedures are being vague, making rise to different interpretations by the employees in accordance with its position within the organization.

Leadership level

The decentralized management can be seen as the root of the problem of silos. Managers seek to respond to the objectives that have been proposed to them, and they will bring their subordinates to their cause. At the end of time the department's interests overlap with those of the organization and when this individual vision predominates over the team spirit the silos emerge. This is a perversion of the concept of decentralized management. The director of the organization sets ambitious goals and endows the managers with the means and the means to achieve them: a manager has the indication to increase sales, another to reduce the costs and a third party will have to keep the finances in order. But this delegation of responsibilities by the director neglects the importance of teamwork in pursuit of objectives (Côté, 2002), contributing itself to the emergence of silos.

On the other hand, it is not uncommon for the personality and management style of the organization's leaders to encourage conflict and be a poor model in respect to the respect and incorporation of the

ideas or needs of others. Equally relevant is the inability of top managers to take a strong position vis-à-vis executives or managers who cause divisions and encourage silos within organizations (Stone, 2004).

Culture

Departmental culture can be defined as the basic set of assumptions of employees in a functional area that expands in the form of cultural values or artifacts and was suggested as the origin of the silo mentality (Wiebeck et al., By Barmyer & Sachseneder, 2013).

Cultures are formed through communication, during frequent social contacts between members of a given group, and essentially consist of a set of ideas, perceptions and own behaviors (Helmert & Knie, in Barmyer & Sachseneder, 2013). Some studies show that these differences increase when the group has a professional background, interests and experience is similar jobs (Chevrier, 2003) since this is associated with a professional identity. In a qualitative study conducted in a large automotive company in Turkey, it was concluded that the objectives of the department are the factor that most strongly influences the culture of the different departments. The culture of a department is better characterized by its objectives than by its professional culture (Barmyer & Sachseneder, 2013).

The departmental culture refers to a single department, although in comparison with other, while the silo mentality with regard to the quality of communication, integration and cooperation with other departments. Departmental culture may be a cause of the silo mentality.

Configuration of silos

Silos can be classified according to the direction in which they are disseminated among the organization's employees as vertical or horizontal (Vatanpour et al., 2013).

Literature disposes the most the silos horizontally, according to the functions that the departments perform within the organization: production, sales, marketing, research and development, etc. (Barmyer & Sachseneder, 2013, Organization, 1988). It also recognizes its vertical dimension, the view of silos as a perversion of decentralized management (Côté, 2002) and the recognition that the problem is deepened by how the power and objectives are distributed by the various hierarchical levels of the organization (Stone, 2004).

There are still organizations that are apparently more complex than typical enterprises in the private sector where economies of scale prevail and where functions are typically compartmentalized by departments. Good examples of these complex organizations are universities and hospitals. In the latter, several professional groups with different academic paths, expectations and functions, classically health care providers, managers and administrative staff, coexist within the same department (Fenwick et al., 2009). The nature of work requires very high levels of cooperation

between different professions, which is a fertile field for the proliferation of silos (AME, 1988). So, silos can have another horizontal dimension, besides the departmental function, the professional class.

Within the departments and a professional group there may be smaller silos, people who share interests, strong personal links or a certain comfort area, and who establish a preferential communication that separates them from the rest of their department (Vatanpour et al., 2013). These can be a particularly strong locking force. In keeping with the example of hospitals, situations in which internal disputes between doctors in the same department have serious consequences for the organization are not uncommon.

The silos can still arise among organizations, a good example of this is what is called organizational haemophilia, the tendency for an organization to relate and form new links with similar organizations (Bevc, Retrum, & Varda, 2015), often according to with the disciplinary or methodological silos to which they belong.

Consequences of silo mentality

The consequences of the silo mentality can be felt on several levels.

At the collaborators level

Departments where the silo mentality prevails, which can not communicate with each other and that in trying, through endless meetings, can not make any decision, produce more friction and tension than work. The time spent in this process depletes employees and tend, extreme further positions (Schütz & Bloch, 2006).

The silo mentality thus reduces the efficiency and motivation of employees. Difficulties in communication lead to error and finger pointing. Employees seeking to distance itself from the errors and reject any responsibilities to not harm credibility and potential career. In the end, all employees feel victimized (Vatanpour et al., 2013).

A wide range of physical and mental reactions to stressful situations, ranging from gastric ulcers to anxiety, asthenia and aggression, are detrimental to the health and well-being of employees. These also become the carriers of the "virus of the silos" (Schütz & Bloch, 2006), since it is they, not the departments themselves, that disseminate the behaviors. The interactions are between people, not between departments, but the consequences are felt throughout the organization.

At the organization level

As the silo mentality sets in the organization, communication difficulties arise, lack of cooperation, loss of confidence, and internal competition. Departments do not interact as part of the same organization, but as competitors following their individual goals, without considering the interaction on other departments outcomes (Barmyer & Sachseneder, 2013, Côté, 2002, Stone, 2004).

Barriers to communication promote the isolation that has a negative impact on the process as there is a lack of functional integration. This is particularly acute in organizations providing services because it compromises the ability to offer integrated solutions to customers. Employees may even be reluctant to refer clients to other services within the organization. Low-cost cooperation has costs for the organization, including time, energy and money (Vatanpour et al., 2013).

With isolation, departments begin to become more opaque and have a distorted view of the value-generating activities of other units. In a short time there will be complaints about how others work and organize, a fertile field for the flowering of all kinds of stereotypes. This same situation was evidenced by a study on interdepartmental conflicts conducted in Germany in which 300 organizations participated, comparing the internal and external perceptions of the different departments (Schütz & Bloch, 2006).

Tunnelled and self-centered vision leads to the inability to achieve common goals and increases the likelihood of duplication of efforts, as there is no coordination through collaboration (Chisita & Abdullahi, 2012). Barriers and blockages will hinder management and restrain creativity and innovation (Stone, 2004).

Not infrequently parts collide. The directors are focused on their own goals and they do not expect help from counterparts to achieve their goals, so they do not care, or do minimal effort, in coordination and cooperation with other managers. Employees are given the message that it is necessary to achieve the goals of the department and that others have to take care of themselves (Côté, 2002).

The silos decrease efficiency and this is more evident in more diverse and large organizations, where the silos are spread across business units. Breaking these barriers would generate value as it would be possible to share services, skills and systems across, encouraging good practice. Even so, the most important would be the reduction of non-productive tensions within the organization (Côté, 2002).

Implementing changes within an organization where silos proliferate is very difficult. Leaders of the business units do not have an organizational perspective as a whole and will undertake this effort in a logic of "winners and losers", this increases tension within the organization. This is because each unit tries to explain the transformations and changes only from its perspective, pointing out how its working methodologies will be affected and what the unit will need to do to make the change successful. This creates a competitive element, with unit leaders trying to be the ones who drive change faster, with less problems, and better *feedback* from hierarchical superiors (Franklin, 2014).

There is no place where the responsibilities and implications for the organization as a whole are discussed and when the various leaders join in steering meetings the changes are already under

way. This is a consequence of a very prevalent type of vision within organizations with very deep hierarchical cultures, that the organization is only the sum of the various parts and that they have to respond individually to the challenges. Any suggestion that one must have a cross-cutting and complete perspective is welcomed with little enthusiasm. The biggest problem with this individualistic view is that often the progress of one unit is made at the expense of the effectiveness and efficiency of another. It is also common to develop the same project, separately, by two business units (Franklin, 2014), which leads to duplication of costs and efforts.

In the market economy only the best products survive. For example, when an organization is not able to connect the world of engineers: development, production and logistics; with the world of sales, marketing and consumer service, it is at risk. Misunderstandings are inevitable since the worlds of engineering and business, because they have different formations, languages and objectives, are different. Nevertheless, its clarification and the establishment of collaborative bridges are fundamental, otherwise the business eventually collapses (Schütz & Bloch, 2006).

At customer level

A customer who has to deal with an organization where silos proliferate easily gets frustrated. The sales department is usually the one that deals with customers and, for example, in the presence of a quality problem, is not who designed or produced the product that interacts with the customer. Difficulties in communication and collaboration within the organization compromise the timely resolution of the customer problem. It is common client feeling like they are dealing with a divided organization (Organization, 1988), where there is a set of small powers, information blocks, and island solutions that make it difficult to solve their problem. In this situation customer probably switch to the competition (Schütz & Bloch, 2006), since he has a relation with the organization as a whole and expects consistency, regardless of the business unit with that interacts (Franklin, 2014).

SILO MENTALIDADE IN HEALTH SERVICES

In the last two decades several authors have talked about the importance of silo mentality in health care (Hajek, 2013, Kumarasamy & Sanfilippo, 2015), since the normal functioning of organizations with the complexity of hospitals requires very high levels of understanding and cooperation between professional groups with different paths and expectations (Vatanpour et al., 2013).

Causes of silo mentality in health services

The conventional medical model is based on autonomy and individualism and suggests that errors can be eradicated through these if allied with a heroic devotion to the profession. The highly hierarchical organization that stems from this model exerts power from top to bottom, focusing on technical proficiency with little reference to other capabilities such as communication or perceiving

the needs of the other. It completely ignores the fact that poor communication is the main cause of clinical errors (Bleakley, Boyden, Hobbs, Walsh, & Allard, 2006; Fletcher, McGeorge, Flin, Glavin, & Maran, 2002).

With the technical progress and the medical specialization the number of services and departments in the hospitals had a great increase. Yet the organization did not abandon the mechanistic conceptions of the nineteenth century, essentially keeping its highly rigid and hierarchical organizational matrix unchanged (Drupsteen, Van der Vaart, & Van Donk, 2013). There has never been inside a logistics chain perspective and the vast majority of general hospitals have adopted a functional organization model, built around medical specialties, mainly anatomical divisions or to segments of the population (Lega & DePietro, 2005).

The neglect of interdependence of a services, in the context of an ambiguous and complex world (Waldman, 2007), had consequences for the efficiency, cooperation and capacity of the organization's communication. The way managers deal with complexity, trying to systematically ignore or reduce it (Ashmos, Duchon, & McDaniel Jr, 2000), further deepened the problem. In this way, the separation between managers, regulators and managers is particularly problematic in health services (Waldman, 2009), resulting in silos appearance.

The rigid structure was being replicated throughout the organization, usually based on multiprofessionalism, rather than a true interprofessional collaboration, contributing to tribalisation of healthcare organizations. An example of this is the typical culture of the operative blocks, characterized by interprofessional frictions resulting from deficient communication and collaboration. This culture is transported to future health care professionals as a kind of hidden curriculum (Paige et al., 2014).

Health services are made up of special interest groups in which their members have specializations, academic backgrounds, social systems and approaches to their own work. The various differences can lead to widespread mistrust that can only be dissipated by working and mingling over time, by building relationships (Drupsteen et al., 2013).

Information silos happen in situation that data systems that do not exchange information with similar data systems (Miller & Tucker, 2014), there are a continuum of the silo mentality prevalent in services, marked by the ambiguity between willingness to share data and the desire for its concealment from other services, often seen as competitors. This situation is mirrored by the results found in a study conducted in the United States of America by Miller & Tucker. This has shown that both large hospitals and hospitals of greater specificity are more likely to share information with the outside world (Miller & Tucker, 2014).

The relationship between the two central components of health services, hospital executives and physicians, the latter as representatives of all health care providers, is explored by Waldman and Cohn (2007). They report a mismatch between the two groups that is embodied in different ways of thinking, priorities, incentives and responsibilities, and whose main causes are the different academic paths, modes of professional socialization and, ultimately, visions of the world.

For these authors providers of care health are committed to providing health care user-centered, free of any constraint. They think that they do what society wants and, as such, deal poorly with the restrictions imposed on them by the organization, managers or regulatory agents. In this way, they direct their discontent and frustration at the most tangible target: the manager (Zuger, 2004).

Executives are responsible for creating the conditions for them to be provided quality health care in a context of limited resources. Their decisions inevitably have an impact on the health care provided. Managers also have their frustrations were educated to an environment in which machines, money and people are simple means to an end and they do not realize the frustration of doctors with resource constraints (Cohn, 2005).

The balance of power in health care has changed. The increase in power and influence of managers has been accompanied by a loss of power on the part of doctors, yet both sides feel they are at the top of the pyramid. This conflict tends to be transported to the communication in a dichotomous model - us / them (Waldman, Smith, Hood, & Pappelbaum, 2006).

If doctors and executives work independently the result can only be one: silos. A problem - based structure is transported to the relationship between them and goes deeper with payment scheme that subvert the fiduciary relationship that supposedly exists between doctors and patients (Waldman & Cohn, 2007). No less important is the issue of the triple standard. Waldman (2009), with triple standard of care, summarizes the communication problems in the health services. Judge a situation by two sets of Golden Rules is called a double standard. Health outcomes are, as a rule, judged by a triple standard: that of the health professional, that of the manager, and that of the legislator. To these it might be necessary to add a fourth, the user, but the author excludes it because it is the substrate on which the system operates and not a component of the system.

Medical culture is authoritative and individualistic, discourages teamwork and is conservative. The manager's culture encourages collaboration, but places little value on scientific knowledge. The outside environment, by which the legislator is governed, is actively hostile to health services, all adverse outcomes are assumed to be due to error and the scientific evidence is used to punish. This makes health services highly risk- averse and discourages experimentation (Waldman, 2009).

Ideally the triple standard should be reduced to a single standard where evidence-based decisions, provided with effective feedback, would apply to all components of health services equally. For this, initial step is mandatory, all the arts must change their way of thinking, however this is the most difficult, as it will change all the *status quo* (Waldman, 2009) .

Consequences of silo mentality in health services

With the technical progress and the medical specialization the number of services and departments in the hospitals had a great increase. The competition between these units has increased and their unwillingness to share information, as well as the way of thinking of its employees, led to a decrease in efficiency and contributed, to the loss of trust between professionals (Langley & Warner, 1990 ; Waldman, 2007) .

The various departments and services involved in the care delivery process are focused on their internal processes and costs. There is no concern with the coordination of activities with those of other departments involved in the process. The result is a discontinuity in the flow to the users, decreasing both productivity and satisfaction (Drupsteen et al., 2013).

The consequences of the silo mentality in the health system are described, specifically in the case of the *National Health Service* , by McCartney (2016). This states that no information sharing and the separation of employees by professions leads to duplication of work without sharing the results and to the pursuit of cross-purposes, very often is all the system that encourages these behavior. And McCartneys notes "Take, for example, the worthy campaign to reduce antibiotic prescribing. Quite right: this should lead to fewer drug resistances. But there's also a campaign to recognise and treat potential sepsis earlier—with antibiotics. The two campaigns inevitably conflict". The pressures that various groups exert toward their goals are often opposites and enter into conflict. When confronted with this situation, the norm is to recognize the value of the opposite recommendation and to blame a third party for the problem (McCartney, 2016).

With technical progress and the development of health systems the risks have increased. In spite of this, user safety management, more specifically risk, quality and safety, is usually fragmented in the image of clinical services. This fragmentation in three parallel silos is due to the different genesis of the three areas (Hajek, 2013). Risk management is derived from the management of insurance and remove portions, the management of quality control and accreditation and the safety management of medical error response. Although they have in common non-necessarily clinical functions, which collect hospital data for their own use and report abroad, each one of them is traditionally managed by a different part of the hospital administration: legal, financial and medical; and embedded in a different infrastructure, which often leads to competing agendas (Hajek, 2013).

CONCLUSIONS

The silo mentality can be defined as the set of individual or group beliefs potentially causing division within an organization and whose most common result is the creation of barriers to communication and the sharing of information and the development of disjointed processes of work (Fenwick et al., 2009) .

Its causes go far beyond human nature and are a consequence, not only of the dimension and division of tasks within the organization, but also of the mechanistic model itself, rigid, hierarchical, segmented into professional groups and with insufficient channels of communication (Barmyer & Sachseneder, 2013, AME, 1988). Other important causes are leadership (in the way decentralized management is interpreted (Côté , 2002)) , and culture (given the relevance of departmental culture (Barmyer & Sachseneder , 2013)).

As for the configuration of the silos this will be essentially matrix: there are horizontal silos, corresponding to the medical and transversal services; and there are vertical silos, represented by the various hierarchical levels within the organization (AME, 1988; Stone, 2004) . There is also a transversal silo to the whole organization, represented by the inability to look outside the organization itself. Professional classes and other interest groups emerge as another horizontal dimension of the silos (Fenwick et al., 2009).

Silo mentality causes a reduction in efficiency at all organization level, difficulties in sharing information, increased challenges in adapting to innovation and commitment of its resilience (Barmyer & Sachseneder, 2013; Côté, 2002; Stone, 2004). At the employee level, the silo mentality causes fatigue, professional dissatisfaction and distrust among professionals (Schütz & Bloch, 2006). In terms of users the silo mentality can cause frustration, since the service may not have the expected quality or is not according their needs, and they may be subject to avoidable errors (Franklin, 2014; AME, 1988; Schütz , 2006) .

In health care the silo mentality is of particular importance since the functioning of complex organizations such as hospitals requires cooperation and understanding between professional groups with different paths and expectations (Vatanpour, 2013). The technical progress and medical expertise led to the increase d the number of services. However, the organization does not changed its structure, which is still organized according the medical specialties, highly rigid and hierarchical (Drupsteen , 2013; Lega, 2005). This situation had consequences for the efficiency and capacities of cooperation and communication within the organization (Waldman, 2007).

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THE DOMINANT LEADERSHIP STYLES AND THEIR EFFECTIVE BEHAVIORS ON EMPLOYEES' PERFORMANCE IN THE MIDDLE EAST (THE CASE OF IRANIAN ORGANIZATIONS)

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ABSTRACT

The present paper is a result of an investigative and descriptive research focused on leadership performances, behavior and competencies, related to the efficacy and impact in job satisfaction, job performance, and the workers desire to change and commit. The data analysis has been managed to develop better leadership competencies inside the organization and improve the business transactions of the organization.

There is lack of literature on leadership research in Middle East countries that manages as limited the understanding of leaders' behavior under the specificity of culture and local organizational climate. Therefore, the research uses samples and data provided by the social security insurance staff organization of Tehran, Iran.

This research explores which type of leadership styles and behavior are more common in Iranian companies and how efficiently the leadership can be improved so that the organizations goals get better and faster results. The definition of objectives is followed by the methodology description and explanation on the survey done. Finally, the validity and the reliability of data explored and processed will sustain the conclusions.

Keywords: leadership style, employees' performance, leader's behavior, job satisfaction

INTRODUCTION

This paper addresses the domination of leadership behaviors and its effectiveness and influence on the employees' performances. Despite the great number of studies on leadership behaviors, styles and performances, explaining the facts in the developed industrial countries from Europe and North America, there are very few that analyze the situation in the Middle East where the organizational culture is part of the local traditions and specific working environment. Therefore, the present study is centered on the Middle East countries' experience, especially that one from Iran.

The investigative research springs from the necessity to analyze and improve the employees' performance and managers' decision. The impact of leadership in business development is still

debatable; according to some researchers there is still a high necessity of enhancing the leadership capability and competencies to improve the impact on the employees' work and their quality performances and use the results as a powerful tool to increasing investment (Wood C.E, *et al.*, 2015). However, as a first step, we need to know more on the effectiveness of dominant leadership behavior and the necessity of developing the leadership competencies especially in the countries with different culture.

The main objectives of the research are directed to develop the perspective on behavioral change models in a leaderships' role and business development, based on solid documentations. They concern:

- the contrast and the comparison of the dimensions and effectiveness of the leadership competencies in the organization and business activities.
- the identification of the most appropriate definition of the employee's perception, the expectation of leadership behavior and the factors linked to the leadership's role and its performance in the organization.
- the study of the relationships between leaders' behavior and the performances of the employees' job and the degree of their satisfaction inside the organization.
- the identification of evidences for effective developing, of the influence of culture and the organization's climate against the leaders' behavioral inside the organization.
- the assessment and evaluation of the desire of both employees and establishments to identify and implement the change.

Based on the research objective, the study falls into three categories: 1) basic 2) applied and 3) research and development. The data used are both descriptive and experimental.

The experimental part of the study analyses the relationship between cause and effect between two or more variables examined while the descriptive part includes a collection of methodologies used to describe better the conditions and the phenomena investigated.

The implementation of the descriptive research may be done merely in order to gain better understandings about the existing situation or help the decision making process, (Saris & Gallhofer, 2014).

The library method was used for documentation and literature review and the questionnaire survey method helped to gathering the information about the studied variables.

The research size of investigation is of 300 persons, social security insurance staff of Tehran organization. The accurate determination of the sample size has been a very important factor in extending the test results to the whole community. There are several techniques for sample size determination, but the most accurate methods are mathematical ones. (Stride, 2008). Whereas the

statistical population framework of the study was limited as well as being in reach, Cochran statistical sample size formula was used to assess the sample size which selected in this research.

The most important data gathering methods which are used in this study are as follows: a) library studies to define the theoretical principles (Stride, 2008); b) field study to collect data and answers. Knowledge, interests, attitudes and believes of individuals related to specific issues have been evaluated through the questionnaire (Saris & Gallhofer, 2014). The questionnaire contains two categories of question: *general* questions (4) to pick up demographic information about the respondents - age, gender, education, work experience and *specific* questions (28 related to the executive leadership style, 18 to examine the employees' desire of change and 11 questions to study their organizational trust (Walker, 2012). *Five-item Likert Scale* was used to design the questionnaire.

IMPLEMENTATION AND ANALYZING OF THE RESEARCH

According to the subject, a statistical sample of employees' has been selected among the social security staff (Tehran). Once the number of samples determined and the questionnaires fulfilled, the information obtained was process using SmartPLS and SPSS19 software. The number of valid collected questionnaires was 170. Since the present study is a survey one, the descriptive and inferential statistical methods were carried out in order to process and analyze the data. SPSS and SmartPLS software were used. (Hair, 2016).

1. *Descriptive statistics*: In this analysis method, the collected data are summarized and classified using descriptive statistical criteria. In other words, in the context of descriptive analyzing method, researchers first summarize the collected data through the prepared frequency distribution tables, then display them, with the help of graphs, and eventually summarize them using other descriptive statistics criteria (Sholihin, 2009).

2. *Inferential statistical method*: In comparative analysis approach, collected data is analyzed in a descriptive manner, and moreover, it will be compared with each other (Vinzi, 2010). After filling out the questionnaire and doing the codifying process, the generated codes were transferred to a computer and were analyzed using SPSS and SmartPLS software. Given that, the *Likert* scale formula was used to examine and assess the workers' attitude and the *Cronbach's alpha* coefficient used to evaluate the reliability and validity of the questionnaire.

Data analysis was done through both the descriptive and inferential statistical methods. In the descriptive statistics, the researcher, first, characterize the statistical population using descriptive statistics index, and then, describes the data with the help of charts and statistical tables and other related indicators of the situation.

According to the inferential statistical approach, after determining the distribution of the variables over the community level, the researcher made the structural equation modeling using *SmartPLS* software and *Kolmogorov -Smirnov tests*, *two-sample T-test* and *Average comparison test of community (ANOVA)*, in order to carry out the hypothesis test (Hair, 2016).

The main hypothesis:

H_0 = Normal distribution. The Leadership style has no positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

H_1 = Not Normal distribution. The Leadership style has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The first hypothesis:

H_0 = Normal distribution. The Humility has no positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

H_1 = Not Normal distribution. The Humility has a positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

The Second hypothesis:

H_0 = Normal distribution. The kindness has no positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

H_1 = Not Normal distribution. The kindness has a positive and significant impact on the desire to efficacy change in social the security insurance (Tehran).

The Third hypothesis:

H_0 = Normal distribution. The Reliability has no positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

H_1 = Not Normal distribution. The Reliability has a positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

The fourth hypothesis:

H_0 = Normal distribution. The Service has no positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

H_1 = Not Normal distribution. The Service has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The fifth hypothesis:

H_0 = Normal distribution. The Leadership style has no positive and significant impact on the desire to Organizational Trust in the social security insurance (Tehran).

H_1 = Not Normal distribution. The Leadership style has a positive and significant impact on the desire to Organizational Trust in the social security insurance (Tehran).

The Sixth hypothesis:

H_0 = Normal distribution. The Organizational Trust has no positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

H_1 = Not Normal distribution. The Organizational Trust has a positive and significant impact on the desire to efficacy change in the social security insurance (Tehran).

The Seventh hypothesis:

H_0 = Normal distribution. The Leadership style has no positive and significant impact on the desire to efficacy change by organizational trust in the social security insurance (Tehran).

H_1 = Not Normal distribution. The Leadership style has a positive and significant impact on the desire to efficacy change by organizational trust the in social security insurance (Tehran).

HYPOTHESIS RESULTS

The main hypothesis: the leadership style has a positive and significant impact on the desire to efficacy change in social security insurance. The path between two latent variables is recognized using significant z coefficient (3.481) which is significant in effect size of leadership on tendency to change in employees (F. Hair, 2016).

Standardized value of the coefficient for the path from leadership style to the tendency to change in employees is (0.391), indicates that the leadership style variable includes the 39.1% of the variability in tendency for the change in employees. So, at the insurance level of 95%, according to the results of the following table and given that the t-statistic is greater than 1.96, we can say that the main hypothesis is accepted and dynamic leadership style has a positive and significant impact on the tendency to change in employees' of social security insurances (Tehran).

The main Hypothesis	Path coefficient	t	Test result
The Leadership style in the organization has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).	0/391	3/482	Accepted

The First hypothesis: Service has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The path between two latent variables is recognized using significant z coefficient (1.386) which is significant in effect size of leadership on tendency to change in employees.

Standardized value of the coefficient for the path from leadership style to the tendency to change in employees is (-0.200), indicates that the leadership style variable includes the 20% of the variability in tendency for the change in employees. So, at the insurance level of 95%, according to the results of the following table and given that the t-statistic smaller than 1.96, then we can say that the first hypothesis

is rejected and Service has a no positive and significant impact on the tendency to change in employees' of social security insurances (Tehran).

Hypothesis 1	Path coefficient	t	Test result
The service has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).	-0/200	1/386	Rejected

The Second hypothesis: Humility has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The path between two latent variables is recognized using significant z coefficient (1.326) which is significant in effect size of Humility on tendency to change in employees. Standardized value of the coefficient for the path from Humility to the tendency to change in employees is (0.196), indicates that Humility variable includes the 19.6% of the variability in tendency for the change in employees. So, at the insurance level of 95%, according to the results of the following table and given that the t-statistic smaller than 1.96, then we can say that the Second hypothesis is rejected and Humility has a no positive and significant impact on the tendency to change in employees' of social security insurances (Tehran).

Hypothesis 2	Path coefficient	t	Test result
The Humility has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).	0/196	1/326	Rejected

The Third hypothesis: Reliability has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The path between two latent variables is recognized using significant z coefficient (1.102) which is significant in effect size of Reliability on tendency to change in employees. Standardized value of the coefficient for the path from Reliability to the tendency to change in employees is (0.149), indicates that the leadership style variable includes the 14.9% of the variability in tendency for the change in employees. So, at the insurance level of 95%, according to the results of the following table and given that the t-statistic smaller than 1.96, then we can say that the Third hypothesis is rejected and Reliability has a no positive and significant impact on the tendency for change in employees' of social security insurances (Tehran).

Hypothesis 3	Path coefficient	t	Test result
The Reliability has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).	0/149	1/102	Rejected

The Fourth hypothesis: Altruism has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The path between two latent variables is recognized using significant z coefficient (0.382) which is significant in effect size of Altruism on tendency to change in employees. Standardized value of the

coefficient for the path from Altruism to the tendency for change in employees is (-0.037), indicates that Altruism variable includes the 3.7% of the variability in tendency for the change in employees. So, at the insurance level of 95%, according to the results of the following table and given that the t-statistic smaller than 1.96, then we can say that the Fourth hypothesis is rejected and Altruism has a positive and significant impact on the tendency for change in employees' of social security insurances (Tehran).

Hypothesis 4	Path coefficient	t	Test result
The Altruism has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).	-0/037	0/382	Rejected

The Fifth hypothesis: leadership style has a positive and significant impact on the Organizational Trust in social security insurance (Tehran).

The path between two latent variables is recognized using significant z coefficient (19.999) which is significant in effect size of leadership on the tendency to Organizational Trust. Standardized value of the coefficient for the path from leadership style to the Organizational Trust is (0.669), indicates that the leadership style variable includes the 66.9% of the variability in tendency for the change in employees. Hence, at the insurance level of 95%, according to the results of the following table and given that the t-statistic greater than 1.96, then we can say that the Fifth hypothesis is accepted and dynamic leadership style has a positive and significant impact on the Organizational Trust of social security insurances (Tehran).

Hypothesis 5	Path coefficient	t	Test result
The Leadership style has a positive and significant impact on the Organizational Trust in social security insurance (Tehran).	0/669	19/999	Accepted

The Sixth hypothesis: Organizational Trust has a positive and significant impact on the desire to efficacy change in social security insurance (Tehran).

The path between two latent variables is recognized using significant z coefficient (0.460) which is significant in effect size of Organizational Trust on tendency to change in employees. Standardized value of the coefficient for the path from Organizational Trust to the tendency for change in employees is (-0.057), indicates that the leadership style variable includes the 5.7% of the variability in tendency for the change in employees. So, at the insurance level of 95%, according to the results of the following table and given that the t-statistic smaller than 1.96, then we can say that the Sixth hypothesis is rejected and Organizational Trust has a no positive and significant impact on the tendency for change in employees' of social security insurances (Tehran).

Hypothesis 6	Path coefficient	t	Test result
The Organizational Trust has a positive and significant impact on the desire to efficacy change in social security insurance	-0/057	0/460	Rejected

(Tehran).			
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The Seventh hypothesis: leadership style has no positive and significant impact on the desire to efficacy change by Organizational Trust in social security insurance (Tehran).

The Coefficients 0.669 and 0/057 shows leadership style by Organizational Trust, 3/8% (0/669*0/057) has a positive and significant impact on tendency to change in employees. The Fifth hypothesis and The Sixth hypothesis are shows the leadership style has a positive and significant impact on the Organizational Trust in social security insurance organization and the Organizational Trust has no positive and significant impact on the desire to efficacy change in social security insurance (Tehran). We can say that the Seventh hypothesis is rejected and dynamic leadership style has a no positive and significant impact on the tendency to change in employees' of social security insurances (Tehran).

Hypothesis 7	Path coefficient	t	Test result
The Leadership style has a positive and significant impact on the desire to efficacy change by Organizational Trust in social security insurance (Tehran).	0/669 -0/057	19/999 0/460	Rejected

CONCLUSION

The research result could become a useful and practical framework, able to provide information for the managers and leaders, to have the effective developing at the leader's competencies in the organizations and business transactions and give a new orientation of the leadership role in the organizations.

The most important results of effective development of the leadership competencies are doing the best change in the employees' performance at the organization for finding out the significant effects of executive leaders' competencies in leading the employees along with the business strategies, and ultimately increase their potential and abilities to achieve goals and aims of the organization.

Furthermore the research method and results can be used and duplicated for other researches in this field to verifying the similarity of leadership behavior and the existing style in the prosperous organizations in different countries of the Middle East or in comparative analyzes with the companies from different European countries.

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SOCIAL MEDIA AND MARKETING STRATEGY IN EDUCATIONAL SERVICES

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ABSTRACT

With the advent of social media and the critical role played by consumer generated content for all types of businesses, there is a need to use social media effectively in marketing strategy. The purpose of this study is to analyse the way educational service firms use social media in their marketing strategy. Data is collected through in-depth, personal interviews of key informants in 5 private colleges. Results show that 4 out of 5 have a social media manager whereas all businesses use various measures of effectiveness of social media use. Also, all firms promote their services through social media and provide information about old or new services. Furthermore, most firms cultivate intimate relationships with customers through social media and handle customer complaints. Only one rewards customers for their loyalty, and two use a customer group or Facebook hub page to manage customer relationships. Finally, no firm uses social media formally for new service development purposes. However, 4 businesses channel customer-supplied information to the appropriate departments for use in designing future services and forming long-term strategy. This study extends findings into the way social media use can be formally incorporated into marketing strategy. However, it is limited to a small number of cases in one service industry. Managerial implications are provided.

Keywords: social media, marketing strategy, educational services, consumer generated content, buyer-seller relationships, crm, co-creation, colleges

INTRODUCTION

Social Media (SM) is defined as “a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content” (Kaplan & Haenlein, 2010, p. 61). SM platforms include Facebook, Twitter, LinkedIn, YouTube, Instagram as well as commerce communities (e.g. Amazon) and blogs and discussion forums (Agarwal & Yiliyasi, 2010). SM also include business networks; photo-sharing platforms; social gaming; microblogs, and chat apps (statista.com, 2017). The power of social networking is such that

the number of worldwide users is 2.46 billion in 2017 and is expected to reach some 2.95 billion by 2020, around a third of Earth's entire population (statista.com, 2017). Facebook is the most popular social medium with 2.06 billion users worldwide (statista.com, 2017).

As the penetration and use of social media increases rapidly around the world, firms realise the importance of incorporating social media into their marketing strategy. First, companies increasingly use social media as part of their promotional campaigns to educate customers and create strong brand reputations (Nevin & Torres, 2012). Also, social networks serve as platforms of customer relationship management (CRM) and are used to enhance relationships with customers (Saperstein & Hastings, 2010; Wright et al., 2010). Finally, since social media enable two-way communication with customers, they also enable and enhance the co-creation process of products and services with customers through the integration of user-generated content in the development process. However, there is limited research on how social media can be integrated into all aspects of marketing strategy and researchers emphasize that in the new millennium the role of the internet and digital technology in marketing strategy are themes that require more research (Celuch & Murphy, 2010; Day, 2011). Also, the educational industry is oriented towards the young generation that is particularly active on social media. Therefore, it is very important for educational establishments to include the use of social media in their marketing strategy. The objective of this study is to analyse the way educational service firms use social media in their marketing strategy and especially in three important areas: interactive communication with customers; customer relationship management (CRM) practices and actions aimed at encouraging customers to take part in the development of new services.

The paper is structured as follows. First, we begin with a literature review on the role of social media in marketing strategy, then we present the methodology used; third, we explain the results and finally we conclude with managerial implications, limitations and suggestions for further research.

LITERATURE REVIEW

Social media have become a rapidly growing, global phenomenon the past several years. In late 2014, there were 1.35 billion Facebook users, 284 million Twitter users, 1 billion Youtube users, and 332 million LinkedIn users (www.statista.com). Businesses and their marketers are increasingly viewing social media as an additional marketing channel through which they can communicate or interact with their customers and prospective customers (Gummerus et al., 2011; Stelzner, 2013). In the marketing context, social media are seen as a phenomenon that is potentially heralding a paradigm shift (Hanna et al., 2011). Wu et al, (2013) stress that although Facebook and Twitter were traditionally designed to connect people, express opinions and re-kindle real life social relationships, they are now used widely as a marketing tool to gain brand awareness or obtain customer feedback.

Many researchers conclude that social media is an online platform which enables customers to create and share content; communicate with one another, and build relationships with other customers (Gordon, 2010; Hennig-Thurau et al., 2010; Libai et al., 2010). The value of social media for marketing is already high and increasing with a fast pace. Smith (2009) classifies social networking as a global phenomenon that is spreading around the world and becoming an important marketing tool. The use of social media is an effective way to engage people and provide them with value (Hudspeth, 2012; Asley & Tuten, 2015) and can provide many tangible benefits for businesses, such as reaching a wide array of customers beyond geographical constraints (Wright et al., 2010), enhancing service quality, facilitating timely and cost-effective research, building and enhancing databases, and reducing costs (Barnes, 2010), improved sales; accelerated new product adoption; higher customer retention or enhanced customer relationships (Harris & Rae, 2009; Maddock & Vitón, 2009).

Consequently, companies try to incorporate social media into their marketing effort by engaging customers on social media in different ways including interactive communication as part of their promotional mix; actions related to the development and nurturing of customer relationships and the exchange of ideas and information regarding new products and services (Hutton & Fosdick, 2011).

Social media have been included in the promotional mix of companies and are considered to be an important marketing channel for many large global brands (Nevin & Torres, 2012; Papasolomou & Melanthiou, 2012). Mangold & Faulds (2009) consider social media to be a hybrid element of the promotion mix in that it combines some of the characteristics of traditional IMC (Integrated Marketing Communications) tools with a highly magnified form of word-of-mouth communications. When marketers discussed word-of-mouth before social media existed, they would talk about how one customer could influence scores of other customers. Now with electronic word-of-mouth (eWOM) created through social media, one customer can influence thousands of people (Bowen, 2015).

Apart from their promotional role, social media can help marketing strategy in two other very important areas. First, social media help to improve communication with customers and through continuous interaction lead to customer intimacy (Saperstein & Hastings, 2010). So, firms can use social media to create intimate relationships with customers (Wright, 2010). If we consider that the development of close, mutually beneficial relationships with customers is considered to be a competitive advantage in today's market and leads to more loyal customers, we can safely conclude that firms who are successful in using social media for CRM purposes will enjoy more loyal customers and become more competitive (Harrigan et al., 2015).

Furthermore, another important area where social media can be used is in the development of new products and services. The ability of consumers to interact with businesses across a variety of digital platforms; mobile; tablet, laptop and so on, and the growth of consumer generated material through

these platforms has created the potential for businesses and brands to research and then use consumer generated content (Quinton, 2013). Therefore, firms cannot neglect the valuable opportunity to utilize social media to communicate and co-create with consumers (Kane and Fichman, 2009). Kao et al (2016) argue that social media can be used as a platform for firms to co-create with consumers and propose a 5-stage process model of social-media-based co-creation. However, there is no research on how companies use social media for new service development.

In summary, although the use of social media provides many tangible benefits for businesses (Wright et al., 2010; Barnes, 2010; Harris & Rae, 2009), researchers note that there is an absence of studies on social media strategy, even in the B2C context, (Ngai et al., 2015; Keegan & Rowley, 2017) and that the knowledge base regarding social media use in organisational settings needs further development (Ngai et al., 2015). Therefore, the business use of the internet and digital environments including social media (Celuch & Murphy, 2010) and the role and centrality of digital technology in marketing strategy (Chang et al., 2002; Day, 2011) are themes highlighted as deserving further research.

In the area of educational services, the use of social media is particularly important since students are part of the younger generation that is highly active on social media. Universities and other educational establishments around the world encourage the engagement of students and alumni in social media through the use of social media pages and groups, blogs, forums, communities etc.

This study aims to analyse the way private colleges use social media in their marketing strategy and more specifically in three major domains: in the communication effort as part of the promotional mix; in customer relationship management and for new service development purposes.

METHODOLOGY

This study is qualitative in nature, aiming to develop a better understanding of how service firms use social media in their marketing strategy. A total of 5 case studies were included in the study involving 5 private colleges that operate in Athens, Greece but also have international affiliations. The ultimate objective of the study is to identify the differences and similarities between the different companies in their use of social media in marketing strategy. Data collection was done with in-depth, personal interviews of employees based on a semi-structured questionnaire. A key informant was used in each business that was either responsible for social media use or the one more closely working on this area. Three areas of social media use were analysed: interactive communication; development of customer relationships, and the development of new services. The interviews were tape-recorded and transcribed in order to retain the rich information provided by respondents. Also, the interviewer analyzed all secondary materials related to the respondent organisations (reports, web site, social media pages, brochures etc.) in order to identify their social media practices and triangulate data.

Data was analysed with thematic content analysis (Holsti, 1969). Using an inductive approach, i.e. moving from data to the development of theory (Kerlinger, 1986), data from each interview was first analysed separately. Then the data from all interviews was tabulated and compared in order to identify similarities and differences between businesses.

RESULTS

All 5 colleges use Facebook, 4 use Twitter, 3 use Google+ and 2 of them also use youtube. Finally, 1 of them uses either LinkedIn, Instagram, Flickr or Tumblr. Facebook is considered as the most effective medium for the colleges mainly due to the high engagement of users and for effective targeting since colleges target students who are among the heaviest users of social media. One respondent emphasized this point by saying that *"Facebook is a well-known and proven communication tool and provides ideal targeting for us since we target students"*. YouTube is used for showing videos and campaigns of the colleges and is powerful due to sound and image properties. To complement the use of social media, all 5 colleges use their own web site and two of them also have their own blogs. Also, some of them use educational; political; informational; and other websites for promotion; google adwords; google campaigns, SEO techniques; email campaigns, and online listings.

Four colleges have a social media manager although only 3 of them are trained for this job. Also, one business outsources to an advertising agency that works closely with the Integrated Marketing Communications Department of the College. Social media managers manage content and links posted on the different media pages, design and implement social media and online marketing campaigns and interact with people on social media.

Furthermore, three of the colleges use social media to inform customers about the educational programs available and the new programs developed. As a respondent emphasized *"..the offered programs are posted in our Facebook page and a link to our site is attached for further information"*. Also, 4 of them use social media for handling complaints and nurturing a relationship with customers. Only one business rewards customers for their loyalty through social media, one has a customer group on social media and another uses its page on Facebook as a hub or meeting place between students, teachers and alumni. As the manager says *"Our page on Facebook serves as a hub where students, teachers, alumni and prospective students can meet and exchange information on the School, not only regarding academic programs but also anything else that the school does such as seminars, new cooperations, events etc"*.

None of the colleges use social media formally for NSD. However, in 4 of the five businesses information from customers is channelled to the organisation and helps in designing future services and forming long-term strategy. Any ideas that are provided through interaction with customers on social media are evaluated by the departments of the business and if deemed valuable, they are used in the future. As a respondent characteristically said, *"Feedback from our fan base is evaluated by the*

relevant departments of our firm and all valuable information is used for setting our long-term strategy”.

However, there is no specific strategy for exploiting social media for NSD purposes.

All colleges evaluate social media statistics such as clicks, impressions, likes etc. and one of them outsources that service to a media company. Furthermore, one college uses Facebook Insights and measures how many people are engaged in Facebook Applications where prospective students can answer carefully targeted questions, communicate with the college and express interest for a specific academic program. Finally, another business evaluates the increase of involvement in events or meeting days organised, gets prospective students to indicate where they learned about the college, monitors the number of engaged users on Facebook and the number of visitors on the college's website. As the respondent very pointedly commented *“The effectiveness of social media use also has a qualitative side. The increase in engaged users and the communication of the college's advantages, through social media and the overall online presence of the school, enhances awareness and creates a continuous communication channel with target customers and our students throughout the year”.*

DISCUSSION & MANAGERIAL IMPLICATIONS

The most commonly used social medium is Facebook with Twitter and Google+ in second and third position. However, in the educational industry some businesses also use Youtube. Furthermore, the use of social media is complemented by the use of a firm's own site; other industry-related sites or their own blogs. These results show that managing the digital presence of a company is a complex task and therefore, there is a need to formalise this process and integrate the information supplied and the message sent across all digital media. Therefore, businesses should aim to develop an integrated digital marketing communication strategy.

Also, it seems that firms should add a social media manager to their employees that is adequately trained and understands the values of the brand and how to interact with customers. Previous research has shown that when there is no person responsible for social media or when this job is an entry-level position, customer relations and brand reputation suffer (Lepp, 2015). Also, other researchers show that if there is a lack of appropriate and dedicated personnel for social media, the firm cannot successfully implement its social media marketing strategies (García-Morales et al., 2014; Choi & Theoni, 2016).

Furthermore, results show that social media are used for promotional reasons, for communicating with customers and developing close relationships and for generating new service ideas or suggestions for service improvements. However, again their use is not formally integrated into marketing strategy and in some cases, it is also limited. For example, few businesses have a customer club or customer group on social media or reward customers for their loyalty through social media.

Also, none of the colleges purposefully use social media for new service development purposes. It seems that interactive communication, customer relationship management and co-creation should be managed together as part of the marketing strategy of the firm because they are interrelated. An increase in interactive communication helps in developing and nurturing relationships with customers. Such customers are more loyal and less likely to switch to another provider. Also, such customers can be approached through social media for new service idea generation.

Finally, the measurement of social media effectiveness is widespread but varies in intensity and mode (quantitative and qualitative measures). However, the selection of measures also differs between businesses. Also, we see no evidence of firms using social media metrics that improve outcomes such as brand awareness, brand loyalty, or positive WOM. A lack of these outcome metrics suggests that social media use is not a strategic decision and therefore, they are not used as a strategic tool (Choi & Theoni, 2016). As a result, firms should incorporate the use of social media into their strategy and start using more outcome oriented metrics.

LIMITATIONS & SUGGESTIONS FOR FUTURE RESEARCH

This study extends findings into the way the use of social media can be formally incorporated into marketing strategy. However, it is limited to a small number of cases in one service industry. Future research can extend the sample and do quantitative studies in order to validate and extend findings. Furthermore, future studies can analyse more deeply the way social media are used in all areas of the services marketing mix.

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METHODOLOGICAL ISSUES IN PATIENT SATISFACTION

ASSESSMENT: SOME RECOMMENDATIONS

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ABSTRACT

This paper aims to discuss the methodological issues regarding the evaluation of patient satisfaction in order to highlight some aspects that need improvement. This study made a compilation of the most frequent used questionnaires and classified the dimensions measured. All methodological issues and sources of bias reported by authors were acknowledge and discussed. Recommendations are made in order to mitigate all types of bias. Capturing the voice of the patient/client is an essential element of policy planning which can influence the quality improvement policies and provides an opportunity for organizational learning and improvement of the ability to retain/attract patients.

Keywords: patient satisfaction assessment; measurement errors; methodological bias; healthcare assessment scales; health units' management.

INTRODUCTION

Several authors have made systematic analysis providing us useful recommendations about patient satisfaction measurement (Sitzia, 1999; Reeve et al. 2013; Shirley, Josephson and Sanders, 2016). Nevertheless, this paper aims to complement that work by updating the discussion of several aspects that can influence the expectations and the perceptions of the quality of care.

Nowadays the task of assessing patient satisfaction is still facing some barriers and inhibitors, which cause systematic distortions (Carlucci, Renna and Schiuma, 2013). For example: a) lack of cognitive skills of older patients to answer long questionnaires- which means that sometimes the questionnaire is answered by patient's relatives who are not aware of all relevant incidents occurred during the whole stay; b) lack of time- patients are hurrying to leave the hospital, so they rate their perceptions, not based on conscious and completely honest evaluations, but based on heuristics, influenced by halo or recency effects; c) lack of privacy and anonymity- which may inhibit criticisms because patients are afraid of future negative consequences.

LITERATURE REVIEW

“Healthcare quality” and “patient satisfaction”, “perception” or “experience” are often used interchangeably in the research literature (Beattie et al, 2014). Healthcare is a multidimensional concept, which has different meanings depending on: culture, time of analysis, type of focus in process, structure or outcome or type of target population (patients, relatives, healthcare personnel, administrators or politicians). Several studies confirmed that patient experience is positively associated with patient safety and clinical effectiveness (Brundage et al, 2013). For example, Doyle et al (2013) analyzed 55 studies which demonstrated positive associations between patient experience and self-rated and objectively measured health outcomes; adherence to recommended clinical practice and medication; preventive care (such as health-promoting behavior, use of screening services and immunization); and use of resources (such as hospitalization, length of stay and primary-care visits).

The English National Health Service (NHS) based its assessment in the following dimensions of patient experience: respect, information, communication, physical comfort, emotional support, and access to care (Ahmed, Burt and Roland, 2014). Later Larsson and Larsson-Wilde (2010) made also a very important contribution when they proposed their theoretical framework.

In this paper, the other variables related with the professional groups or other players rather than patients were not included in the analysis. For example, issues related with job satisfaction, burnout, participation of doctors and nurses in education/formation programs, dissatisfaction with salary/wages, financial incentives, rewards indexed to quality and satisfaction, or pay-for-performance schemes (Llanwarne et al, 2013). Moreover, this paper will not be focused in the unintended consequences or managerial implications of patient satisfaction assessment. According to Zgierska et al (2014) the patient satisfaction survey utilization may promote, under certain circumstances, job dissatisfaction, attrition, and inappropriate clinical care among some physicians (including unnecessary antibiotic and opioid pain medication prescriptions, tests, procedures, and hospital admissions). This is concerning, if data from patient experience of care surveys are perceived by physicians as a punitive tool regarding compensation or other negative professional consequences, violating clinicians’ sense of professional integrity.

Since the early years of the development of the quality control theory, scholars and practitioners have widely discussed the constructs and dimensions, which are relevant for health care and hospitals.

Grøndahl et al (2013) developed a model proposing three types of predictors of patient satisfaction: 1) person-related conditions, 2) external objective care conditions and 3) patients’ perception of actual care received. Interestingly, some studies report that treatment satisfaction may rely more on the patient’s perception of met expectations rather than objective medical outcomes.

According to Rathert et al (2015), patient-centered care has often been conceptualized as consisting of eight dimensions: 1) Respect for patients' preferences, values and expressed needs; 2) Coordination and integration of care and services; 3) Information, education and communication; 4) Physical comfort; 5) Emotional support; 6) Involvement of family and close others; 7) Continuity and transition from hospital to home; and 8) Access to care and services.

More recently, Beattie et al (2014), developed a systematic review protocol and utility critique of measurement instruments proposing the following criteria for selection of most adequate instrument: validity, reliability, educational impact, cost efficiency and acceptability.

Qualitative research also offers a variety of methods for identifying what really matters to patients and carers (Pope, van Royen and Baker, 2002). Several methods can be used: individual face to face interview, focus groups, exploration groups, "quality circles", observation based, and narrative based medicine. Although these methods provide deep insights about the expectations and motivations uncovering issues or concerns that had not been anticipated or considered by the researchers, they also have disadvantages because the patient participation is not anonymous. Nevertheless, quality managers will always need to have quantitative support based on higher response rates. Anthoine et al (2014) remembered the need of a priori justification and adequacy of the sample dimension.

The levels of missing data may be correlated with the education level, because patients with higher literacy are used to completing forms. Other aspects related with the design of the instrument (specially the overall length), may decrease the response rates. In order to minimize this problem, response rates can be increased because new developments in technology allow that surveys can be conducted through mobile apps in patients' smartphones, through online surveys, or through the use of handheld devices or kiosks to get real-time feedback (Stoyanov et al, 2015).

This paper provides a compilation of the more relevant measurement tools presented in Appendix 1 Appendix . Moreover, in the literature you will find two types of assessment methods: a) patient reports: patients describe what happened with a Yes/No answer; and b) patient evaluation: patients rate/evaluate their experience (e.g. with a four points Likert scale from very bad to very good).

MEASUREMENT ERRORS, BIAS RESULTING FROM METHODOLOGICAL ISSUES

According to research theory, besides expected random errors associated to sampling there can be several types of systematic errors:

- 1) *Measurement errors from systematic bias* related with: information processing; response and non-response bias; design of questionnaire/ scale items; interviewer; and requested information insufficient for assess the construct. For example, regarding non-response bias, floor and

ceiling effects must be investigated by inspection of the number of respondents validating extreme response categories expressed as a proportion of valid responses obtained (Groves and Peytcheva, 2008)

- 2) Sampling/research design: population specification; respondents' selection procedure. Ratings may be influenced by respondent characteristics (age or educational attainment), by patient's expectations, or by socio- psychological phenomena, such as self-interest, the Hawthorne effect (refers to a situation in which an individual's behavior is altered by the observation itself) (Leonarda and Masatu, 2006) or gratitude. For example, patients report more negative experiences if there are higher proportion of younger patients, ethnic minorities, and patients living in more deprived areas (Ahmed, Burt and Roland, 2014).
- 3) Situational factors: timing of assessment: patients tend to be more satisfied only weeks after discharge and it may also depend on patient illness and recovery (Crow et al, 2002). In-patients are more willing to answer more positively than they would if they answered the questionnaire after discharge. Obstetric patients (young mothers of new born children) are more prone to collaborate while a higher waiting time for administrative discharging may induce a negative mood and refusal to answer.
- 4) Cognitive/memory related bias such as: the recency effect (Baddeley and Hitch, 1993); primacy effect; response order effect (Vriens et al, 2017); amount of information, type of information and mode of presentation (Latorre-Postigo et al, 2017). According Vriens et al (2017, p.221) "primacy refers to an increased preference for items listed in the beginning of the set whereas recency implies higher preferences for items listed last, regardless of the content of the items presented first or last". Latorre-Postigo et al, (2017) concluded that the greater the number of recommendations, the lower the recall; visual presentation does not enhance verbal presentation; lifestyle information is recalled better than medication information; after ten minutes, the percentage of memory decreases significantly; and finally the first and last recommendations are better remembered.
- 5) Other external objective care conditions may have a strong influence on the ratings due to a negative halo effect. For example, critical conditions such as sharing a room versus sleeping alone, having to spend the night in a corridor bed, repeated admissions (Grøndahl et al, 2013) or other adverse events and critical incidents (Agoritsas, Bovier and Perneger, 2005).

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

In general, the majority of studies provided evidences that the perception of interpersonal-based medical service encounters positively influences service quality and patient satisfaction (Carlucci,

Renna and Schiuma, 2013; Chang, Chen and Lan, 2013). The perception of service quality among patients positively influences their trust which in turn positively influences their satisfaction.

However, this paper aims to provide some recommendations focused in the methodological issues only:

- A few minutes should be spent informing the patient about the purposes of the questionnaire, assuring their privacy and anonymous status by all means (Carlucci, Renna and Schiuma, 2013).
- The healthcare assessment implies the measurement of functional/tangible aspects and relational/intangible assets. The relational issues are related with emotions and feelings, which may be difficult to translate into a scale measure due to their volatility.
- The collection of multi-item health status measures can be time consuming, expensive, and overwhelming. Several comparative analyses demonstrated that single item questions can be a reliable and valid alternative (Cheung and Lucas, 2014) in order to increase the response rate and fit the narrow time window of patient collaborative mood.
- Non-intrusive digital gamified methods (Johnson et al, 2016) may also help to achieve the adequate sample dimension, which must be designed according to survey objectives (Anthoine et al, 2014).
- Quality managers should provide the means to capture all the hidden dissatisfaction and latent negative sentiments amongst patients.
- Hospitals must manage all the claims and micro-crises with responsiveness giving feedback to the patient. Unsolved problems will generate negative electronic word-of-mouth (eWOM) (Wallace et al, 2014).

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APPENDIX 1- COMPILATION OF THE PATIENT SATISFACTION MEASUREMENT TOOLS.

Dimensions	Measurement tool / Scale
Doctor–patient communication, clinical team interactions, organizational features of care	The Ambulatory Care Experiences survey (Sequist et al, 2008) Hospital Consumer Assessment of Healthcare Providers and Systems survey (HCAHPS) (Jha et al, 2008; Giordano, Elliott and Goldstein, 2010). Seattle Outpatient Satisfaction Survey (SOSQ) (Fan et al, 2005) Quality of communication questionnaire (QOC) (Slatore et al, 2010) Interpersonal-Based Medical Service Encounter (Chang, Chen and Lan, 2013)
Technical quality of care Physician’s knowledge of patient	Hospital Quality Alliance (HQA) score [20] General Practice Assessment survey (Rao et al, 2006) Components of Primary Care Instrument (CPCI)(Flocke, Stange and Zyzanski, 1998)
Coordination of care and overall experience	Commonwealth Fund International Health Policy Survey (Burgers et al, 2010)
Patient-centered care, access, courtesy, information, coordination, emotional support, physical comfort	VA Survey of Healthcare Experiences of Patients (SHEP) (Meterko et al, 2010) Quality from Patient’s Perspective (QPP) questionnaire, 25 item (Wilde Larsson and Larsson, 2002) English GP Patient Survey (GPPS) (Campbell, Smith and Nissen, 2009)
Undesirable events	Picker Inpatient Survey (Agoritsas, Bovier and Perneger, 2005)
Satisfaction	Patient satisfaction (Research and Development (RAND), 9 item (Jackson, Chamberlin and Kroenke, 2001) Emotional Stress Reaction Questionnaire (ESRQ), 30 item (Larsson and Wilde-Larsson, 2010)
Patient faith in doctor Trust and confidence	Multidimensional Health Locus of Control Scale (Raiz et al, 1999) English GP Patient Survey (GPPS) (Campbell, Smith and Nissen, 2009)
Patient (Children) and Family-centered care	Children’s Hospital Boston Pediatric Inpatient Experience Survey (PIES), 62 item (Uhl et al, 2013)
Service Quality	SERVQUAL (Parasuraman, Zeithaml and Berry, 1988)
Urgent care	UCPERF: An Urgent Care Patient Satisfaction Instrument (Qin et al, 2014)

THE FUTURE OF THE GREEK BANKS THROUGH THE CHALLENGES OF AN AGEING POPULATION, IMMIGRATION AND TECHNOLOGICAL TRANSITION

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ABSTRACT

The Greek banking system is called to deal with three major demographic shifts that have a direct impact on its sustainability. In this context, the country's ageing population and slow-paced technological transition constitute negative parameters that have an adverse effect on the stability and growth of the Greek banks in today's globalized economic landscape. In this assignment, it is primarily attempted to investigate the impact of demographic ageing of the population that fuels the Greek economy, on the liquidity, specifically, of the domestic banking system. Therefore, the theoretical background of the research study is based on the Life-Cycle Hypothesis (*Modigliani & Ando, 1963*), in which individuals share their consumption and savings behaviour over their lifetime, doing so by increasing savings when earning high incomes and dis-saving when they are retired. The selected empirical approach is followed by applying the method of Multiple Linear Regression to simple time series and panel data referring to the period from 1998 to 2016, which outline the intertemporal character of the phenomenon. Moreover, a comparative exploration takes place of the analysis of data derived from the Greek economy, versus the corresponding data displayed by the Eurozone states, as well as the individual results referring to the global economic crisis of 2008. The statistical findings of the investigation show a mixed picture, demonstrating that demographic ageing can actually affect the banking system of a specific state, especially when the ageing phenomenon is strong or further aggravated by low productivity, which is the case with Greece and other countries of Southern Europe. Whereas, in countries where aging progresses smoothly or in countries where there is a strong demographic aging with simultaneous presence of high productivity and competitiveness indicators, the pressures on the banking system liquidity are weak. On top of that, an investigation takes place in terms of the challenges that emerge as a result of both the population's ongoing shift towards a digital society and the digital transformation of the financial sector, as well as the substantial flight of

human resources and channeling of capital resources abroad, which followed the recent economic crisis.

Keywords: Demographic Ageing, Banking System, Liquidity, Loans over Deposits, Immigration, Technological Progress, Greece, Eurozone

INTRODUCTION

The demographic aging of the modern western world is a current issue that has already affected many countries of Europe, bringing them up against major economic and social problems. This phenomenon, which is referred to as 'double aging', consists literally in the ongoing increase of the proportion of the elderly (aged over 60 years old) over the total population, which coincides with the simultaneous drop in the weight of children (0-14 years old), and probably of the ages in-between (Vyron Kotzamanis, *"Demographic Aging in Postwar Greece"*, EDKA). The change of these relationships is a process that, under normal conditions, develops gradually, and cannot be affected merely through the implementation of long-term national planning. Furthermore, the significance of the problem lies mostly in the economic relationships that exist among generations, i.e. between the active contributors and the non-active pensioners, and affects a number of issues, either directly, such as the substantial increase in funding social security expenses, claims in health expenses, and the redistribution of social burdens among generations, or indirectly, such as consumption, saving, and investment.

By focusing, specifically, on the indirect implications of demographic aging, this survey investigates the effect that an aging society can have on its banking system, as well as on its traditional role as an intermediary. Based on the assumption that the banking system constitutes the primary mechanism that brings together the surplus-producing economic units with the deficit-producing ones (or, otherwise, the lenders with the borrowers¹), it is investigated if the rate of increase of aging of the population can affect the management of the lifecycle of banking products, and whether the banking sector can meet the requirements for the transfer of funds among the different age groups of the same time period, and different generations of different time periods, keeping, at the same time, its liquidity at safe and efficient levels.

A critical factor for the successful intermediating function of the banking system is the choice for saving money over time, that is, how the economic unit changes its consumption or/and investment strategies depending on its decisions for saving, driven by its current needs, and those that it anticipates having in the future. Simply stated, individuals retain wealth, or, in other words, save it, in

¹ Panagiotis Aggelopoulos, *"The Banks and the Financial System (Markets, Products, Risks)"* (Stamoulis Publications S.A., 2nd Edition, Athens 2008).

order for it to serve their daily transactions, provide for their future needs and unpredicted circumstances and, of course, make a profit, planning a constant flow of consumption and living expenses throughout their lifecycle, in line, primarily, with income constraints, that apply to both their intangible and tangible assets.

In summarizing these concepts, the starting point of the analysis that is performed in this paper is the Life-cycle Hypothesis (Modigliani & Ando, 1963), according to which, the life of an individual is made up of three main periods. The first one refers to the early period in the life of an individual, where, an effort is literally made for education and professional settlement. At this stage, the economic unit has limited, to zero, or even negative income, which means that saving is limited, and naturally, it can also be supplemented by borrowing. In the second stage, which is also the most productive part in the individual's life, the individual has settled professionally, and this enables the generation of substantial income. This means that, following the above reasoning, a part of this income is saved, or used to pay off loans that were taken for either productive investments, housing needs, or immediate consumption choices. In the third stage, where there is not any productive income anymore, the economic units enjoy the fruits of the prudence that they showed earlier in life. This means, that they can, at least, live a decent life, and also, depending on the fiscal and microeconomic context of their development, manage a significant portfolio.

On this time dimension of economic behavior lies the intermediating function of the banks, through which, savings from the second, and frequently from the third stage are accumulated and transformed into loans, as well as speculative position management, requiring a significant number of participants, also characterized by a varied age composition, in order for the savers of the second and third stage to cover for the borrowers of the first and second stage. In an economy, however, with an aging population, it becomes clear, that the number of participants in the first two stages has started to fall, and the elderly have begun to predominate. A characteristic example of such an economy is Greece, in the case of which, it is investigated how this aging trend of its population can affect the effectiveness of the intermediating function of its banking system, monitoring the trend of the Loan-To-Deposit Ratio, and comparing the results with the corresponding ones demonstrated by the Eurozone countries.

This survey is divided into the following sections: **1. Literature Review**, **2. Empirical Methodology**, **3. Data Analysis**, **4. Result Analysis**, **5. Conclusions**.

1. LITERATURE REVIEW

Critical issues, such as, for example, how the system will react to the increased liquidation of positions, which is requested by the constantly rising population of pensioners, or where any potential

surplus savings funds will be channeled to, when a decline occurs in the demand for new loans, or even how an unexpected upward trend in the demand for loans will be covered following the end of a long period of birth deficit, comprise the scope of new surveys conducted by the various financial and academic organizations, mostly from the countries that are threatened by the issue of aging. The key literature, however, about this problem has focused, so far, on the changes of private saving.

In an attempt to highlight some of these surveys, special mention should be made to the analysis performed by the International Monetary Fund, which was published in January 2002, under the title: *"Population Aging and its Macroeconomic Implications: A Framework for Analysis"* (Hamid Faruquee), where the macroeconomic implications of aging in the economies of Japan and the United States are examined, as well as their significant differentiation in the movement of capital that is presented by private saving over aging. Another characteristic survey is that conducted by Andrew Mason, Sang-Hyop Lee, and Gerard Russo, under the title: *"DEMOGRAPHY OF AGING ACROSS ASIA"* (Handbook of Asian Aging, Edited by H. Yoon and J. Hendricks - Baywood Publishing Co., New York 2006), where it is reported that the banking system is required to take initiative, in order to meet the financial needs of the aging generations. The survey that was published by the Productivity Commission of the Australian government in 1998 also refers to the same context, and more specifically, to the need to address this demographic issue, in order for the deficit in national saving to be closed. The publication under the title: *"Aging Gracefully: Canada's Inevitable Demographic Shift"* (Toronto, 4th of April 2012), by the Bank of Canada, as well as that under the title: *"The implications of an ageing population for the UK economy"* (Garry Young – Bank of England, London, 2002), by the Bank of England, also fall within the same context, and highlight the need for boosting private saving. Special reference should also be made to the survey conducted by Zheng Liu, Mark M. Spiegel, and Bing Wang, under the title: *"Global Aging: More Headwinds for U.S. Stocks?"* (FEDERAL RESERVE BANK OF SAN FRANCISCO, Economic Letter 2114-38, December 22, 2014), which proves that there is a strong positive relationship between aging and stock prices in the US economy, while the survey conducted by the World Bank in the case of Brazil, under the title: *"Macroeconomic and Policy Implications of Population Aging in Brazil"*, Policy Research Working Paper 5519, Ole Hagen Jorgensen - The World Bank Latin American and Caribbean Region Economic Policy Sector, January 2011, where the findings show that aging is not strong enough as a factor to affect economic growth, leads to the opposite direction.

With regard to the European area, reference should be made to the report of the Council of Europe Development Bank, which was published in January 2014, and refers to the opportunities and challenges that should be addressed by it, and which are caused by the aging of the European population. On top of that, the need for increased saving should also be highlighted, as a

counterbalance to the low core pension benefits that will be provided by the European states in the future, according to what is stated by the World Bank, in its report *"FROM RED TO GRAY - The 'Third Transition' of Aging Populations in Eastern Europe and the former Soviet Union"* (Washington, 2007), since it is confirmed that, the 'life-cycle' theory applies to most European countries, where a decline in private saving occurs during the retirement years.

The article of Stefan W. Schmitz, under the title: *"Demographic Change, Bank Strategy and Financial Stability"*, which was published by the Oesterreichische Nationalbank of Austria, in its report *"Financial Stability Report 13"*, is also in line with the above reports, since it literally deals with the reaction and stability of the banking system towards the implications of aging of the population, highlighting, at the same time, the changes in the macroeconomy, interest rates, financial markets, and real estate markets, as well as the composition of household portfolios and malfunctions in the participation of the banks in the occupational pension funds, with an emphasis on pension products.

In more detail, in this report, it is stated that, due to the upcoming demographic shifts, the demand for loans and basic financial services is expected to decrease, following the trend that has already been initiated in many countries of the OECD since 1980, where a shift has been demonstrated from bank deposits to investment funds (provision of pensions) and bonds. The banks react to this accelerating trend by enhancing the level of innovation of their products, through the application of specific age-targeting long-term management, currently offering on a broad basis many of the services that were within the context of private banking in the past. However, it is evident, that this attempt should be combined with core organizational changes, the improvement of corporate governance, and effective risk management, which, imply, by extent, a higher operating cost.

At the same time, the profitability of the banks is expected to be affected heavily by competitive pressure, the deterioration of the ratio of cost over revenues and the restriction of the intermediating function, which will force the banks to search for other funding sources of – usually – higher cost. This drop in the profitability of the banks will, in turn, reduce their capacity to absorb the shocks from any potential fluctuations, posing a more direct threat to the capital adequacy ratios. Additionally, the increased competition, and the need for differentiated products pose major operating and legal risks, while the attempt for international expansion in new markets intensifies the political and foreign exchange risks. These transformations result in the need for constant monitoring of the implications of the problem of aging and redesigning of the banking sector to be implemented by the regulating authorities.

Moreover, a special differentiation with regard to all the above, due to its specific focus on the function of a particular national banking system, and with notable findings that should be highlighted, is demonstrated by the survey conducted by Michael Berlemann, Marco Oestmann and

Marcel Thum, which was published in CESIFO (working paper no. 2911, category 11: industrial organisation, Munich, January 2010), under the title: *“Demographic Change and Bank Profitability. Empirical Evidence from German Savings Banks”*, through which, the change in profitability of the German banks is examined empirically over the shift in age of its customer base, by applying a forecasting model, which goes through to 2025.

More specifically, the focus was placed on the German economy, both due to its developed banking system and the forecast of a significant demographic shift over the next years, while the survey is essentially focused on how the profits of the banks fall, when the population diminishes, as well as how this change is offset by the fact that the elderly people comprise their most affluent customers. The statistical data also confirm these movements, which could be caused by the net demographic result, and, besides, they also show a positive impact on profits, which is estimated to reach 9% by 2025. In fact, however, given the increased level of competition in the banking sector, and the rising price sensitivity, profit forecasts can be, overall, less optimistic, with a correction that is estimated to finally mark a drop of profits in the region of 3%.

Finally, in moving towards a more specific analysis of the situation in Greece, the survey under the title: *“Private Saving in Greece: Economic and Demographic Determinants”*, by George Hondroyiannis, which was published by the Bank of Greece in its Economic Bulletin (Issue 19) in July 2002, should be mentioned. This paper is one of the few surveys that attempt to analyze the demographic implications to a particular aspect of the banking system of Greece.

More particularly, this survey explores the shift that has taken place in private saving in Greece in recent decades, and attempts to connect it to the issue of aging of the Greek population. It is also reported that, the trend for private saving shifts on a global level as well, depending on the geographical area, and its particular characteristics, providing two different cases as an example; eastern Asia on the one hand, where a significant increase has taken place, and Europe, America, and Japan on the other, where a minor decrease is noted. Regarding Greece, in particular, it is reported that the mean propensity for private saving has demonstrated a substantial decline during the last years of the previous millennium, as opposed to the considerable increase that had taken place during the 1960s and 1970s.

The author also stresses the fact that, this decline has been effected despite the stabilization that had preceded in the Greek economy during that period, with low inflation and high growth rates, and points out, on top of that, the high public debt, which, after a few years, proved to be the biggest wound on the Greek economy. He also states, that over that period, a major credit expansion occurred through the increase of the granting of loans and drop of the interest rates, which, in spite of the high growth rates, did not manage to have the same impact on the level of unemployment in the country. In

focusing, therefore, on these predicaments, he deems the phenomenon of double aging of the population as the catalyst for the further slowdown of the Greek economy. The decrease of manpower and the pressure applied to the insurance funds threaten to further shrink the economy due to the devaluation (impairment) of private and public investments, while, at the same time, the decrease in private saving will further lead to the need to look for foreign funds.

Therefore, on these grounds, the researcher postulates that the study of private saving requires special attention, given the fact that it is directly linked to the domestic financing of development investments, the financing of the fiscal deficit according to the Ricardian equivalence, the deregulation of the financial and credit system, and the uncertainty of the social security system. He also attempts to define the factors that affect private saving, in order to explore its empirical course of progress from the Greek data. Specifically, he mentions, as primary factors that play an important role in private saving, the income and behavior of individuals throughout their lifecycle. As secondary determinants are reported the government budget deficit and the reaction of the economic units to its fluctuations, driven by their awareness of the value of public goods. He also examines the importance that is assigned to the public insurance system, interest rates, financial deregulation, inflation, and, of course, aging, constructing a multivariate linear regression model that includes data from the Greek economy for the period 1961-2000 concerning private saving and its relationship with the total fertility rate, aging index, real interest rate, consumer credit, fiscal result, rate of increase of disposable real income, and inflation.

The statistical controls that result from the regression show that the variables are driven by common trends that cause them to converge in the long run, and that private saving is affected, indeed, by demographic and economic factors in the long run. Regarding, specifically, the demographic factors, it emerges that they have a positive impact on private saving; i.e., an increase of the total fertility rate and the aging index result in a rise in private saving, contrary to the anticipated result, as it is stipulated by the life-cycle theory. This outcome, always according to the researcher's point of view, may be due to the special characteristics of the Greek society, where, parents, on the one hand, believe that it is their obligation to financially support their children throughout their lives, and Greeks in general, on the other hand, consider that public insurance is unreliable and of poor quality, and take care to substitute it through private saving.

2. EMPIRICAL METHODOLOGY

In this paper, the impact of demographic aging on the banking system is investigated, through the relationship between the Loan-To-Deposit Ratio (LDR) and the demographic aging index. The loan-to-deposit ratio is one of the key measurement indicators of the banking system liquidity and the

effectiveness of the intermediating transformation, and is estimated by dividing the total amount of loans by the total amount of deposits (Michael Taillard, 2014). The resulting figure is expressed as a percentage rate, and when $LDR < 100$, the deposits are higher than the loans (high liquidity, low banking expansion); when $LDR > 100$, the loans are higher than the deposits (low liquidity, high banking expansion), and, naturally, when $LDR = 100$, the loans and the deposits are equal. From a demographics perspective, the aging index is used, which, according to the Laboratory of Demographic and Social Analyses of the University of Thessalia¹, is the ratio of individuals aged 65² and over to the population of children aged between 0 and 14 years old, or, stated otherwise, the corresponding number of individuals aged 65 and over, per 100 children, and is expressed as a percentage rate.

The processing of data is performed by the STATA statistical application, through the use of linear regressions. In order to further support the significance of the results, an additional variable is added to the analysis, that is, the GDP growth rate, in order to also partly include the economic determinants of the banking index. This reflection comprises a preliminary approach, which could be normally supported by the addition of more explanatory variables, such as the interest rate, inflation, disposable income, public debt, etc.

The function of the statistical sample is formulated as: “liquidity – $f(\text{Aging Index, GDP Growth Rate})$ ”, and in order for the autocorrelation to be reduced, a lag of 2 years is applied to independent variables, solving a multiple linear regression equation in the form of: $LDR_t = \alpha + \beta \text{AgingIndex}_{t-2} + \gamma \text{GDPgrowthrate}_{t-2} + \varepsilon_t$, by controlling the residuals through the robust and cluster commands. From this relationship, it arises that, if β has a positive sign, then the LDR increases, which means that the banking system liquidity decreases, while the opposite happens when β has a negative sign.

3. DATA ANALYSIS

The data of the total survey are limited to the Eurozone, because of both the common currency and the convergence of the European states under similar rules that regulate the economic function, and the similar techniques that are applied to the economic and statistical measurements conducted by the member states. The major problem that is identified, concerns the lack of statistical data for the Loan-To-Deposit ratio, which, for the sake of uniformity and reliability, is exclusively drawn from the European Central Bank, with its history starting from 1997 onwards. The limited number of the years of recording this ratio poses a significant problem to the survey, taking into account that a long-term representation would substantially reduce any random correlations, and would particularly help to

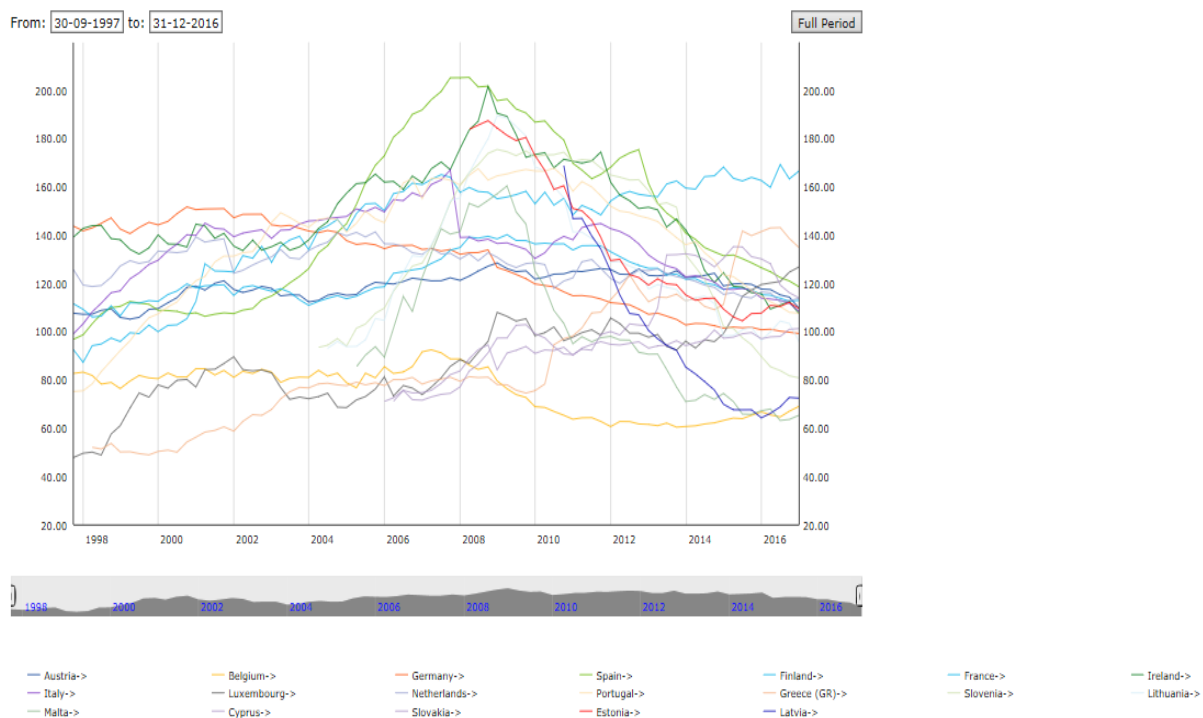
¹ http://www.e-demography.gr/Metadata/Dictionary/files/pyth_dict_00436_gr.pdf

² According to the United Nations, the 60th year of age is set as the age threshold (<http://www.un.org/esa/population/publications/worldageing19502050/pdf/95annexi.pdf>)

produce forecasts about the progress of the figures in question. The history of the data of the demographic index starts from 1960 onwards, and are retrieved from Eurostat, while for the GDP growth rate, the data are derived from the OECD.

The analysis of the data is divided in terms of time and space, as follows:

– Based on the progress of figures in time, the survey is divided in two periods; the first one refers to the years 1998-2000, and the second one to the years 1998-2016, in order to identify the specific contribution that was made to the progress of the LDR and the rapid change of the denominator of the fraction by the global financial crisis of 2008, as it is reflected in the following diagram:



Loan-To-Deposit Ratio of the Eurozone states (1998-2016)

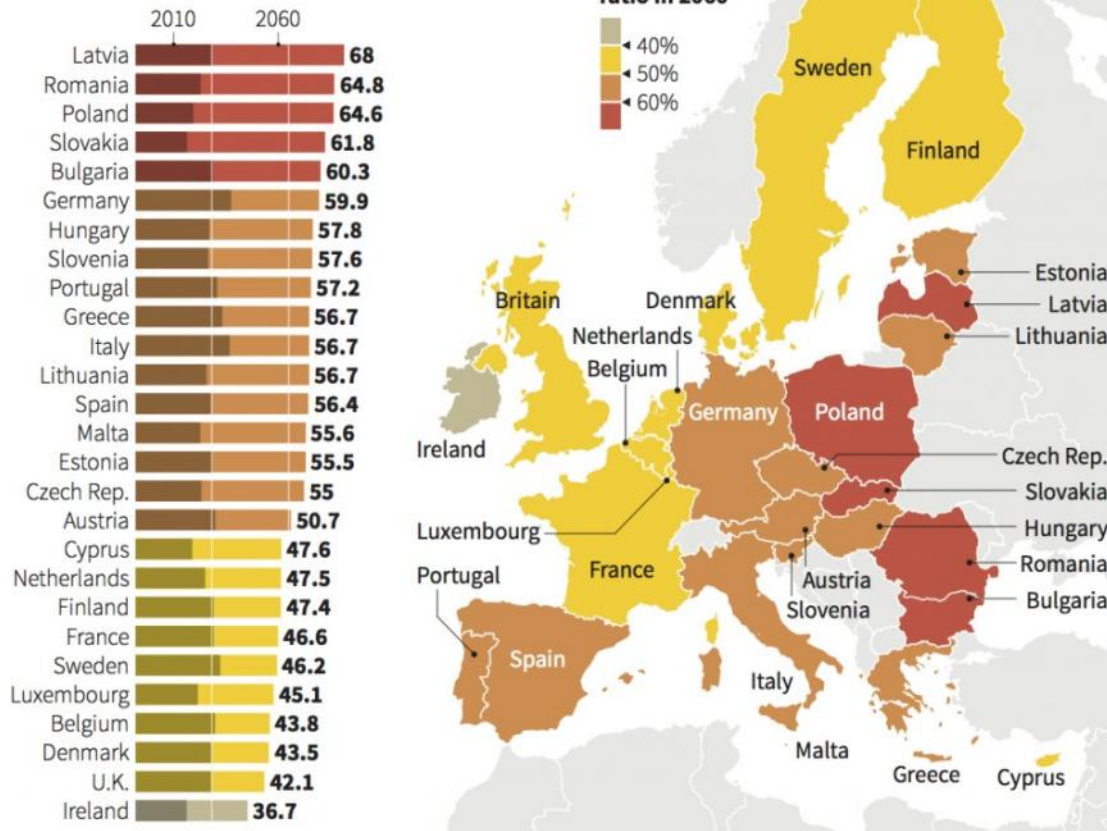
(Source: <http://sdw.ecb.europa.eu>)

– Based on the space approach, the analysis is performed both on plain time series of individual states, such as Greece and Germany, in order to examine the particular characteristics that affect the survey's sample, and on subgroups of states, such as the group of countries of the South (France, Greece, Spain, Italy, Cyprus, Portugal), which have similar characteristics (Malta is excluded, since it demonstrates considerable differentiation in individual economic variables), the group of countries with a low aging index (Belgium, France, Ireland, Netherlands, Cyprus, Luxembourg, Slovakia, Finland), and the group of countries with a high aging index (Austria, Germany, Greece, Estonia, Spain, Italy, Latvia, Lithuania, Malta, Portugal, Slovenia), as they are depicted in the demographic representation shown in the following map:

Europe's ageing population

PROJECTED OLD-AGE DEPENDENCY RATIO

Number of persons aged 65 as a percentage of number of persons aged between 15 and 64.



Graph 1: Demographic aging of Europe

(Source: EUROSTAT)

4. RESULT ANALYSIS

In this section, the significance of the impact that demographic aging has on the banking system liquidity is investigated, leading to the identification of major divergences and the deduction of mixed conclusions. Considering the overall Eurozone as a point of reference, it is noted that, according to Tables 1 and 2, over the 1998-2008 period, there is some positive relationship, although not statistically robust, which completely disappears, if the years 2009-2016 are also taken into account. In essence, there is not any statistically significant relationship between the two variables, which may be due to the fact that most European countries have a stable banking system, which, combined with the degree of protection and supervision applied by the ECB, currently follows the overall economic growth and productivity, absorbing, in this way, demographic pressures.

Table 1: 19 Countries of the Eurozone (1998-2008)

Random-effects GLS regression	Number of obs	=	154
Group variable: var1	Number of groups	=	18
R-sq: within = 0.1709	Obs per group: min	=	1
between = 0.0886	avg	=	8.6
overall = 0.0150	max	=	11
Random effects $u_i \sim \text{Gaussian}$	Wald chi2(1)	=	15.85
corr(u_i , X) = 0 (assumed)	Prob > chi2	=	0.0001
(Std. Err. adjusted for clustering on var1)			

loanstodep~o	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
agingindex	.9298323	.233564	3.98	0.000	.4720552	1.387609
_cons	32.18079	21.62109	1.49	0.137	-10.19577	74.55735
sigma_u	29.794662	(fraction of variance due to u_i)				
sigma_e	17.27684					
rho	.74836756					

Table 2: 19 Countries of the Eurozone (1998-2016)

Linear regression	Number of obs	=	305
	F(1, 303)	=	0.90
	Prob > F	=	0.3427
	R-squared	=	0.0027
	Root MSE	=	31.113

loanstodep~o	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
agingindex	.0636009	.066923	0.95	0.343	-.0680917	.1952935
_cons	113.5179	7.227265	15.71	0.000	99.2959	127.7399

By checking, specifically, the countries with the higher demographic aging, it is also noted, from Tables 3 and 4, that the findings lack statistical significance, given the fact that they refer to most of the Eurozone members, and these countries may show the same characteristics to those that apply for the countries overall.

Table 3: Eurozone countries with significant demographic aging (1998-2008)

Random-effects GLS regression	Number of obs	=	81
Group variable: var1	Number of groups	=	10
R-sq: within = 0.1324	Obs per group: min	=	1
between = 0.0285	avg	=	8.1
overall = 0.0273	max	=	11
Random effects $u_i \sim \text{Gaussian}$	wald chi2(1)	=	9.50
corr(u_i , X) = 0 (assumed)	Prob > chi2	=	0.0021
(Std. Err. adjusted for clustering on var1)			

loanstodep~o	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
agingindex	.8404232	.2726431	3.08	0.002	.3060525	1.374794
_cons	37.93669	30.50303	1.24	0.214	-21.84815	97.72153
sigma_u	28.447476					
sigma_e	21.361524					
rho	.63944042	(fraction of variance due to u_i)				

Table 4: Eurozone countries with significant demographic aging (1998-2016)

Random-effects GLS regression	Number of obs	=	168
Group variable: var1	Number of groups	=	11
R-sq: within = 0.0093	Obs per group: min	=	7
between = 0.0003	avg	=	15.3
overall = 0.0031	max	=	19
Random effects $u_i \sim \text{Gaussian}$	wald chi2(1)	=	1.69
corr(u_i , X) = 0 (assumed)	Prob > chi2	=	0.1938
(Std. Err. adjusted for clustering on var1)			

loanstodep~o	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
agingindex	-.1667492	.1283295	-1.30	0.194	-.4182704	.0847721
_cons	143.7808	17.23064	8.34	0.000	110.0093	177.5522
sigma_u	18.946179					
sigma_e	25.491936					
rho	.35582765	(fraction of variance due to u_i)				

At this point, it should be pointed out that, a different reaction to the aging issue is noted among the member states, which can be either positive or negative, and this results in the mutual offsetting of pressures overall. In other words, by observing the countries with the lowest demographic aging, it is noted, from Tables 5 and 6, that the relationship between the variables demonstrates statistical significance with a negative effect. This could serve as an indication, that, if demographic aging in these countries rises more rapidly than the productivity of the economy and the effectiveness of the banking system, then the latter will face pressures on its liquidity.

Table 5: Eurozone countries with low demographic aging (1998-2008)

Table 7: Countries of the South (1998-2008)

Random-effects GLS regression	Number of obs	=	59
Group variable: var1	Number of groups	=	6
R-sq: within = 0.2924	Obs per group: min	=	4
between = 0.1800	avg	=	9.8
overall = 0.0745	max	=	11
Random effects $u_i \sim \text{Gaussian}$	wald chi2(1)	=	29.08
corr(u_i , X) = 0 (assumed)	Prob > chi2	=	0.0000
(Std. Err. adjusted for clustering on var1)			

loanstodep~o	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
agingindex	1.553444	.2880608	5.39	0.000	.9888556	2.118033
_cons	-46.06168	28.31852	-1.63	0.104	-101.565	9.441602
sigma_u	32.817365	(fraction of variance due to u_i)				
sigma_e	18.842513					
rho	.75207026					

Table 8: Countries of the South (1998-2016)

Random-effects GLS regression	Number of obs	=	107
Group variable: var1	Number of groups	=	6
R-sq: within = 0.0949	Obs per group: min	=	12
between = 0.0771	avg	=	17.8
overall = 0.0489	max	=	19
Random effects $u_i \sim \text{Gaussian}$	wald chi2(1)	=	7.73
corr(u_i , X) = 0 (assumed)	Prob > chi2	=	0.0054
(Std. Err. adjusted for clustering on var1)			

loanstodep~o	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
agingindex	.6147885	.2211136	2.78	0.005	.1814138	1.048163
_cons	54.38532	24.80876	2.19	0.028	5.761041	103.0096
sigma_u	24.853035	(fraction of variance due to u_i)				
sigma_e	22.201141					
rho	.55617987					

In order to give an account of the conditions that cause differences among the countries, in terms of the implications of demographic aging, a number of states are also examined on an individual basis, in order to identify the special characteristics that they demonstrate. By focusing on Greece, which is the basic case of the study, the results in Tables 9 and 10 indicate a statistically significant negative impact on the banking system liquidity. This view supplements the results of the survey conducted by Hondroyiannis, which reported an increased level of saving by the Greeks as they grow older, and shows that aging affects liquidity through the enhanced banking expansion, which is required by an economy that is characterized by low productivity, lack of competitiveness, and deficient state infrastructure. Within this context, the banking expansion, in turn, is transformed to a greater degree

into saving, due to prudence applied in view of the third stage of the life-cycle (in lack of major public infrastructure), and to a lesser degree into investments, which could boost growth and refuel the intermediating function of the banks.

Table 9: GREECE (1998-2008)

Linear regression

Number of obs = 11
F(1, 9) = 18.61
Prob > F = 0.0019
R-squared = 0.4479
Root MSE = 9.9392

loanstodep~o	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
agingindex	1.333713	.3091271	4.31	0.002	.6344193	2.033008
_cons	-89.46196	37.43483	-2.39	0.041	-174.1454	-4.778495

Table 10: GREECE (1998-2008)

Linear regression

Number of obs = 19
F(1, 17) = 127.82
Prob > F = 0.0000
R-squared = 0.8564
Root MSE = 10.745

loanstodep~o	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
agingindex	2.310754	.2043838	11.31	0.000	1.879542	2.741966
_cons	-204.0417	26.43491	-7.72	0.000	-259.8145	-148.2689

In contrast, by checking the case of Germany, it is noted, from Tables 11 and 12, that there is a considerable boost in its banking system liquidity. This relates to the fact that Germany is one of the most productive economies, and therefore, the growth of such an economy can be self-financed to a large extent by the surpluses that are generated (both by the profitability of businesses and the stable household incomes), resulting in keeping bank lending within controlled levels, and being utilized more effectively and less abusively. This naturally means for the liquidity ratio, that the numerator of the fraction, i.e. the loans, shows stability (or, possibly, even a decrease, in order to justify the drop of the ratio). Moreover, Germany has well-structured healthcare services in place, and the elderly persons do not have to spend much money from their savings, in order to ensure health, care, and wellness, in general. Furthermore, these social structures ensure the provision of important services (education, child benefits), even for the dependent persons of young age, offering a considerable relief to family budgets, and boosting savings and the overall banking system liquidity at the same time.

Table 11: GERMANY (1998-2008)

Linear regression

Number of obs = 11
 F(1, 9) = 46.85
 Prob > F = 0.0001
 R-squared = 0.7426
 Root MSE = 3.4565

loanstodep~o	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
agingindex _cons	-.3425015 181.6146	.050039 6.742776	-6.84 26.93	0.000 0.000	-.4556976 166.3614	-.2293054 196.8678

Table 12: GERMANY (1998-2008)

Linear regression

Number of obs = 19
 F(1, 17) = 111.64
 Prob > F = 0.0000
 R-squared = 0.8569
 Root MSE = 6.9011

loanstodep~o	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
agingindex _cons	-.7253705 224.5165	.06865 8.973856	-10.57 25.02	0.000 0.000	-.8702094 205.5834	-.5805317 243.4497

5. IMPLICATIONS – OUTLOOK - CONCLUSIONS

Demographic aging is a phenomenon that could have a severe impact on the banking system of a country. In the case of Greece, the effects of this phenomenon have temporarily abated as a result of the current mechanisms that have been applied, in order to monitor and support the banks (ESM, ELA). However, when the Greek banks finally cease to be under the control of these mechanisms, they will have to face the overall problem; the outlook, with regard to providing support to the economy and growing their operations will be characterized by an extremely adverse environment. The demographic aging index will have aggravated even further, after the third migration outflow that the country has experienced over the years of the crisis, since it is currently estimated that over 500,000 young Greeks of both genders have migrated to foreign countries (Sophia Lazaretou, "Flight of human capital: The contemporary trend of the Greek migration over the years of the crisis", Bank of Greece, Economic Bulletin, Issue 43, Athens, July 2016), with obvious implications on the marriage rate and the burden on falling birth rates.

In addition, a significant aspect of this trend has been the fact that these new migrants are extremely valuable human capital/resources, derived from the most productive age groups of Greek society that could support the restructuring of production and the growth leap that is much needed by the domestic economy. Therefore, it becomes clear that the banking system will come across a major

shortage of a dynamic customer base that could support the expansion of existing banking operations, along with the development of new business and operational strategies.

At the same time, the issue of the flight of human capital (brain drain) has another critical implication that refers to the failure to achieve the technological shift that the country needs. Within the modern globalized environment, where economies compete with each other on an international level in terms of technology intensiveness, the big question is how the Greek economy will be able - with the remaining population - to assimilate and generate technologies that could set it back to a growth path, as well as how the banks will be able to support investments that could bring the new migrants back (brain gain). Additionally, regarding the domestic banks, in spite of the heavy investment that they have made in new technologies for banking operations over the last years - fintech (Labour Institute of the Hellenic Federation of Bank Employees (OTOE), *"New technologies in banks and their effects on employment"*, Athens 2018), many of which can be characterized as a true innovation for the banking industry, the return on this investment remains doubtful, given the fact that the existing customer base is either fairly aged or technologically and digitally illiterate, to such an extent, that the banks should keep in service quite old technologies and practices that involve a high operating cost.

Therefore, it can be concluded that the implications of the issue are now clearly visible, as they exert strong pressure on the entire banking system, establishing negative conditions that affect its sustainability and growth. As a final word with special focus on this analysis, it is evident that an initial approach has been made towards the implications that result from a key banking parameter, i.e. the liquidity of the system, which also serves as an indicator of the banks' effectiveness as intermediaries. Despite the fact that the growth of the globalization effect has temporarily offset the demographic pressures, through, for example, the establishment of common/integrated economic areas and the free movement of persons, major questions are raised about the long-term response of the banking system to aging economies.

According to the results of the survey, there are indications that, in troubled economies, the banking operation is negatively affected by the aging progress of the population, since both the private and the public sector fail to increase their productivity and competitiveness. Further to that, amidst the lack of any internal surpluses, they are required to survive in a globalized environment, and achieve economic growth along with an increased level of banking expansion, which, however, poses risks to the balance and viability of the banking system itself. It is also noted that although the presence of demographic aging can boost liquidity in strong economies in the short run, it challenges the sustainability of their economic growth itself, due to the shrinking productive human capital, and therefore, questions are raised about the long-term pressures that are going to be exerted on their banking system. There are also significant findings from countries that do not currently face aging

problems, but it is suggested that, if demographic transition moves faster than the rest of the economic and social development, their banking system will be under negative pressure.

Finally, it should be noted, that the existence of the demographic problem could serve as an outlet for the development of new banking products and services that would ensure its sustainability over a new, long period of time. Nevertheless, the significance of such external phenomena, which have unforeseen implications to all the fields of human activity, necessitates their close and intense monitoring, and with regard specifically to the banking system, they could be included within the context of preventive regulations on both a micro and macro level, to be applied to the overall monitoring of the banking sector.

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ENGAGING LEADERSHIP AND WORK ENGAGEMENT IN PUBLIC SERVANTS: THE INDIRECT ROLE OF JOB-RELATED AFFECT

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ABSTRACT

The aim of this study was to extend the Job Demands–Resources model of work engagement by introducing engaging leadership as an organizational resource and job-related affect as a mediator between engaging leadership and work engagement. In line with the positive psychology, we examined the indirect effects of both positive and negative affect in a multiple mediation model. The cross-sectional study was conducted in a sample of 238 public servants. The hypothesized model was assessed with structural equation modelling and the results indicated that positive affect was a significant mediator between engaging leadership and work engagement, but negative affect was not. This means that increased engaging leadership was positively related to a higher positive job-related affect, which in turn was positively related to stronger work engagement.

Keywords: engaging leadership, work engagement, job-related affect, motivation, positive management, structural equation modelling, indirect effect, public administration

INTRODUCTION

Professionals working in public administration have a specific motivation for their work, which manifests itself in the role of serving citizens and society (Esteve *et al.*, 2017). However, public organizations are characterized by a complex bureaucratic structure and are often affected by changes resulting from political reasons (Borst *et al.*, 2017). In the public sector, the main job demands are red tape and illegitimate tasks identified as hindrance job stressors, which are devastating to the meaningfulness of the jobs and the employees' well-being (Crawford *et al.*, 2010; Eatough *et al.*, 2016; Semmer *et al.*, 2015). The maintenance and development of work motivation is an important issue in the management of public administration.

Job Demands–Resources framework

According to the Job Demands–Resources theory (Bakker and Demerouti, 2014; Taris and Schaufeli, 2016), the availability of organizational resources increases work engagement, which is a positive state driving employees to work with dedication, to invest their efforts to fulfil in-role behaviours and to exhibit extra-role behaviour. Job resources, including respect and esteem, leadership style, job security and opportunities for career development, play a role in the achievement of organizational goals. Job resources can also reduce the negative impact of job demands, but most importantly, they stimulate employees' development, learning and personal growth. Work engagement constitutes a motivational process that can be increased by personal resources as well, including personal characteristics (e.g. optimism and resilience) and professional competencies and knowledge (Taris and Schaufeli, 2016; Xanthopoulou *et al.*, 2007). Because motivation is crucial in the management of human resources, managers and leaders should structure and manage the motivational process to achieve positive organizational outcomes, including commitment, high-quality job performance, intention to stay and extra-role behaviour (Schaufeli, 2015).

Work engagement

Work motivation is a psychological state that leads employees to perform tasks that bring positive consequences for the entire organization, including economic benefits, growth and development and prestige. In the public administration sector, work is directly oriented toward serving citizens and society (Esteve *et al.*, 2017).

Work engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption (Schaufeli *et al.*, 2002). Vigour represents a high level of energy during work and willingness to invest effort in one's work and cope with difficulties. Dedication demonstrates enthusiasm and involvement in one's work. Absorption is closely related to being fully concentrated and happily engrossed in one's work.

Work engagement is an eudaimonic marker of well-being as it pertains to the work's purpose and meaningfulness and the worker's positive psychological well-being (Bakker and Oerlemans, 2012; Ryan and Deci, 2000). Work engagement is profoundly rooted in intrinsic motivation and personal resources, including resilience and optimism (Bakker *et al.*, 2008). In addition, work engagement is fostered by job resources rather than job demands (Bakker and Demerouti, 2014; Schaufeli and Taris, 2014). More specifically, work engagement is sensitive to changes in organizational resources (Sonnentag *et al.*, 2010a; Sonnentag *et al.*, 2010b). Furthermore, work engagement more often involves evaluating job stressors positively as challenges than as threats (Crawford *et al.*, 2010). Work engagement is also related to positive organizational outcomes, including organizational commitment, job satisfaction and extra-role behaviours (Reijseger *et al.*, 2017). On the basis of the results of their

survey among Dutch public servants, Borst, Kruijen and Lako (2017) concluded that motivation in public service was positively related to work engagement and job outcomes, including affective commitment, and negatively related to turnover intention.

Engaging leadership

Engaging leadership is “a style of leadership that shows itself in respect for others and concern for their development and well-being; in ability to unite different groups of stakeholders in developing a joint vision; in supporting a development culture; and in delegation of a kind that empowers and develops individuals’ potential, coupled with encouragement of questioning and of thinking which is constructively critical as well as strategic” (Alimo-Metcalfe *et al.*, 2008, p. 587). The present study was concerned with conceptualizing engaging leadership from the perspective of Self-Determination theory (Ryan and Deci, 2000). In contrast to other leadership concepts (e.g. authentic leadership or transformational leadership), engaging leadership as proposed by Schaufeli (2015, 2017) is profoundly rooted in this theory of motivation.

Engaging leaders inspire, strengthen, empower and connect their followers. More specifically, they inspire by enthusiasm for their plans and visions, strengthen by delegating responsibility and challenging tasks, empower by learning and sharing knowledge and, finally, connect by focusing on collaboration among team members (Schaufeli, 2015). In short, by inspiring, strengthening, empowering and connecting, leaders promote the fulfilment of followers’ basic psychological needs for autonomy, competence and relatedness (Schaufeli, 2017). Engaging leaders provide their followers with organizational resources and facilitate access to them because they need competent personnel to achieve organizational goals. As a result, subordinates have stronger senses of competence, autonomy and relatedness (Ryan and Deci, 2000).

Engaging leadership is a significant predictor of organizational performance, as it creates positive attitudes in employees toward their work. Specifically, it increases job satisfaction and motivation to achieve, strengthens commitment to the job and the organization and instils individual self-confidence and team spirit (Alimo-Metcalfe *et al.*, 2008).

Leadership behaviour affects staff attitudes and well-being as well (Alban-Metcalfe and Alimo-Metcalfe, 2013; Kim and Beehr, 2017; Schaufeli, 2015). Engaging leadership seems to affect subordinates mainly indirectly, meaning that engaging leaders model and facilitate followers’ attitudes in a more internalized way (Schaufeli, 2015). Engaging leaders also support a developmental culture, building shared vision and focusing on communication and planning for organizational success (Schaufeli, 2017). In addition, they facilitate developing individual potential and making positive use of diversity (Alban-Metcalfe and Alimo-Metcalfe 2013).

Job-related affect

As mentioned previously, leadership affects followers' affective well-being (Schaufeli, 2015), which is often identified as a hedonic marker of well-being, because people seek to experience positive states and avoid negative ones (Diener, 2000). According to the Broaden and Build Theory of Positive Emotions (Fredrickson, 2001), when people experience positive emotions, they grow and flourish. However, it must be emphasised that both negative and positive affect are essential to occupational well-being. In fact, positive and negative affect play different functions in the adaptation process (Lomas and Ivztan, 2015). Positive affect broadens an employee's thought-action repertoire, facilitates explorative behaviours and promotes discovery of novel ideas and social connections, which in turn builds personal resources (Fredrickson, 2001). For instance, in the work context, positive affect encourages employees to craft their jobs (Harju *et al.*, 2016; Tims *et al.*, 2013). In contrast, negative affect warns against danger and mobilizes resources to cope with threats in an attempt to protect health and well-being. Both positive and negative affect are crucial hedonic aspects of occupational well-being. In addition, affect may mediate between job resources and work engagement, which is related to eudemonic aspects of occupational well-being. However, the presence of positive affect seems to be more important to work engagement than the absence of negative affect (Bakker and Oerlemans, 2012).

The present study

The aim of the present study was to extend the Job Demands–Resources model of work engagement by introducing engaging leadership as an organizational resource and job-related affect as a mediator between engaging leadership and work engagement among public-administration professionals. In line with positive psychology, the study examined the indirect effects of both positive and negative affect in the context of the work of public servants. The current study has two important features: first, it theoretically conceptualizes the mediation of positive and negative affect; and second, it tests a multiple-mediation model in which the effect of one mediator is controlled for the effect of the other mediator (Preacher and Hayes, 2008). Such an approach is more ecologically valid, because in real life, mediators usually do not act in isolation.

The following hypotheses were tested.

Hypothesis 1. Positive and negative affect are mediators in the relationship between engaging leadership and the work engagement of public servants.

H1a. Negative affect is a mediator between engaging leadership and work engagement: engaging leadership is negatively related to negative affect, which is negatively related to work engagement.

H1b. Positive affect is a mediator between engaging leadership and work engagement: engaging leadership is positively related to positive affect, which is positively related to work engagement.

MATERIAL AND METHODS

Group and procedure

The sample consisted of 238 public servants between 21 and 68 years of age ($M = 38$; $SD = 9.7$) who had work tenures of between 1 and 43 years ($M = 15.3$; $SD = 10.4$). Of the sample, 74% were women. Most participants had a close relationship with a partner (77%) and children (62%); 19% had a secondary education and 81% had a higher degree.

A professional research agency, was responsible for recruitment and online data collection. The present study was part of a larger project on work engagement among public servants. Participation in which is voluntary and symbolically remunerated. The study was approved by the Ethical Committee of the SWPS University of Social Sciences and Humanities, Warsaw, Poland.

Instruments

Engaging leadership was evaluated using the Engaging Leadership Scale (Schaufeli, 2015), which comprises 12 items describing empowering, strengthening, connecting and inspiring leadership. An example statement is “My supervisor encourages team members to cooperate”. Answers are provided on a five-point Likert-like scale that ranges from 1 (*completely disagree*) to 5 (*completely agree*). Higher scores indicate a higher perception of engaging leadership. In the present study, internal consistency was very high: the Cronbach’s alpha was .95.

Both positive and negative affect in the work context were assessed using the Job-related Well-being Scale (JAWS-12) (Basińska *et al.*, 2014; Schaufeli and van Rhenen, 2006), which was derived from the JAWS-20 (Van Katwyk *et al.*, 2000). The JAWS-12 consists of 12 adjectives that assess how often employees experience positive (e.g. energetic) and negative (e.g. angry) emotions. Respondents were asked to assess how often during the last month they felt a given way regarding various aspects of their work (tasks, co-workers, supervisors, clients, income). They provided their answers on a five-point scale that ranged from 1 (*never*) to 5 (*always*). Higher values indicated more frequent positive or negative job-related affect. Internal consistency for both positive and negative affect were high: the Cronbach’s alphas were .82 and .87, respectively.

Work engagement was evaluated using the ultra-shortened version of the Utrecht Work Engagement Scale (UWES-3, Schaufeli *et al.*, 2017), which measures overall work engagement in terms of vigour (“At my work, I feel that I am bursting with energy”), dedication (“I am enthusiastic about my job”)

and absorption (“I feel happy when I am working intensely”). Each item is rated on a seven-point scale ranging from 0 (*never*) to 6 (*always/every day*). Taking into account the briefness of the scale, its internal consistency could be regarded as satisfactory: the Cronbach’s alpha was .68.

Data analysis

Descriptive statistics and r-Pearson correlations were calculated. No missing data were observed. To assess the model, structural equation modelling was applied. Several indices were used to evaluate the model’s goodness of fit. According to Hu and Bentler (1999), the following cut-off values were adopted: for the Tucker-Lewis index (TLI) and the Comparative Fit Index (CFI), values of at least .95; for standard root mean square residuals (SRMR), values up to .08; and for root mean square error of approximation (RMSEA), values up to .06. The chi-square test was also used. For a model well fitted to the data, its result should be insignificant (Barrett, 2007), but due to the limitations of the chi-square test, its result cannot be considered decisive, even in small samples (Kenny and McCoach, 2003). The total, direct and indirect effects, including the affect-specific indirect effects, were tested (Hayes, 2009). All analyses were performed using Mplus software version 8 (Muthén and Muthén, 2017).

RESULTS

As Table 1 shows that public servants’ perceptions of engaging leadership, job-related positive and negative affect and work engagement all were slightly to moderately correlated with each other. In contrast, the potential confounders (age and gender) were not significantly related to any of the study variables. In addition, all study variables could be regarded as normally distributed.

Variables	M	SD	Skewness	Kurtosis	[1]	[2]	[3]	[4]	[5]
[1] Engaging leadership	3.27	0.89	-0.34	-0.21	-				
[2] Positive affect	2.75	0.53	0.08	0.34	.38*	-			
[3] Negative affect	2.90	0.76	0.31	-0.24	-.36*	-.42*	-		
[4] Work engagement	3.74	0.51	-0.28	0.01	.24*	.48*	-.20*	-	
[5] Sex	0.27	0.20	1.07	-0.86	.08	-.09	-.03	-.16	-
[6] Age	37.91	9.27	0.73	0.13	-.05	-.04	-.16	.08	.01

Note. *M* = mean; *SD* = standard deviation. * $p < .05$ (Bonferroni correction $.05/6 = .0083$)

Table 1. Engaging leadership, job-related affect and work engagement and control variables: descriptive statistics and r-Pearson correlation.

After controlling for sex and age, perceived engaging leadership explained 7% of the variance in employees’ work engagement ($B = .19$; $p = .002$; total effect). In addition, we assumed that both positive and negative affect mediated this relationship. Specifically, perception of engaging leadership

strengthened job-related positive affect, which in turn related to higher work engagement. In contrast, perception of engaging leadership reduced job-related negative affect, and via this path further reduced its negative effect on work engagement. Figure 1 presents the hypothesized model.

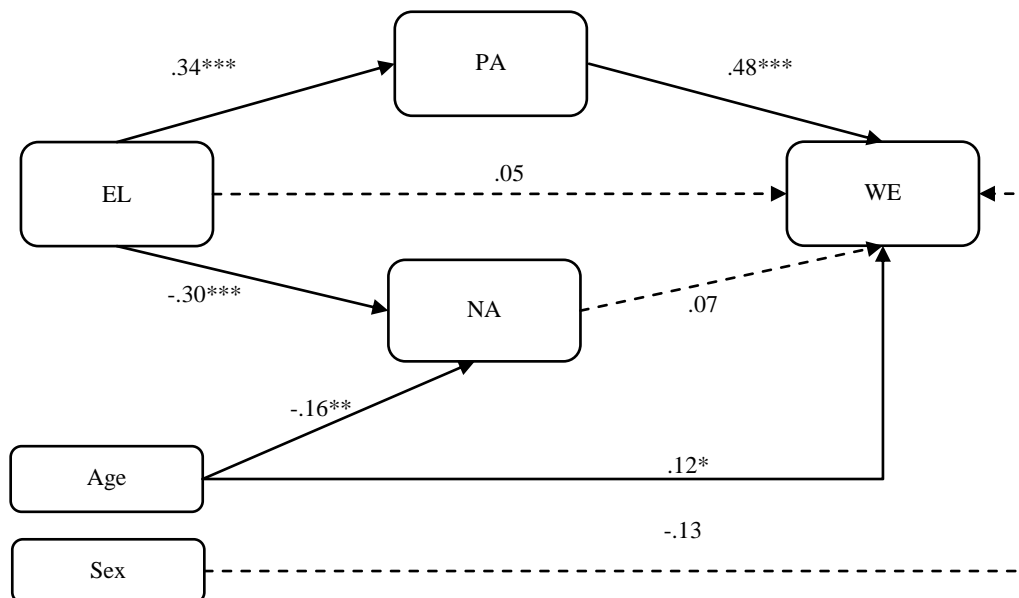


Figure 1. *Job-related positive affect, but not negative affect, mediates relationship between perceived engaging leadership and work engagement of public servants*

Note. EL = engaging leadership; PA = positive affect; NA = negative affect; WE = work engagement. Dotted line = non-significant path. All coefficients are standardized. R^2 for PA = .11; R^2 for NA = .11; R^2 for WE = .25. PA and NA correlation $r = -.34$; $p < .001$. * $p < .05$; ** $p < .01$; *** $p < .001$.

The model fit the data very well according to all the indices: $\chi^2(3,238) = 2.79$; $p = 0.43$; CFI = 1.0; TLI = 1.0; RMSEA = 0.0; 90% CI [0.0; 0.11]; SMRM = 0.02. The indirect effect of job-related affect was significant and positive (.14; $p < .001$; 95% CI [.07; .21]). As Figure 1 shows that perceived engaging leadership was associated with job-related positive affect ($B = .34$; $p < .001$) and, in its turn, job-related positive affect was associated with work engagement ($B = .48$; $p < .001$). For negative affect, the relationship was significant only for engaging leadership ($B = -.30$; $p < .001$), but not for work engagement ($B = .08$; $p = .30$). Accordingly, the analysis of specific indirect effects indicated that the mediating effect of positive job-related affect was statistically significant (.16; $p < .001$; 95% CI [.07; .20]) but this was not the case for negative affect (-.02; $p = .31$; 95% CI [-.04; .01]). In addition, the direct effect of engaging leadership on work engagement appeared to be insignificant ($B = .05$; $p = .41$). Additionally, age was weakly correlated with both negative affect and work engagement: older public servants reported lower negative affect and higher work engagement. The inclusion of these data-driven relationships improved the goodness of fit, but it did not change the indirect effects. Thus, the

results showed that positive affect fully mediated the relationship between engaging leadership and work engagement. Therefore, Hypothesis 1 was confirmed with regard to job-related positive affect only (*Hypothesis 1b*).

CONCLUSIONS

In line with the aim of our study, we examined a model of work engagement that included the indirect effect of engaging leadership via two parallel mediators: positive and negative job-related affect. The results partially confirmed the hypothesized model. Specifically, as reported by public servants, job-related positive affect, but *not* negative affect, fully mediated the relationship between perceived engaging leadership and work engagement.

Contributions

The present study had two aims. First, it was intended to contribute to the management of public administration by introducing engaging leadership as a resource for work engagement. Second, it was intended to empirically confirm extending of the motivational process of the Job Demands–Resources model by integrating it with job-related affect as an intermediate explanatory mechanism. The study filled a gap in the management of public administration by examining the indirect role of job-related positive affect in the relationship between perception of engaging leadership and work engagement among public servants. The results showed that the indirect effect of positive affect, but not of negative affect, is crucial to the relationship between engaging leadership and work engagement. Work engagement derives from positive affective states, mainly those with high activation, including excitement, enthusiasm and pride, but not from low or infrequent negative affective states (Bakker and Oerlemans, 2012). Thus, the results of the present study support this specificity of the affective mechanism associated with work engagement. Particularly, they add to our understanding on how some organizational resources, just like engaging leadership, may be related to more frequent positive feelings that motivate public servants to be vigorous, dedicated and focussed, i.e., engaged in their work. The results are similar to those of previous studies that have demonstrated an indirect effect via job demands and other job resources in the relationship between engaging leadership and both job burnout and work engagement (Schaufeli, 2015). However, in the aforementioned study only partial mediation was observed, and significant direct effect of engaging leadership on organizational outcomes was noted, including employability, performance and commitment.

The present study found that public servants' perception of leaders as engaging may increase their positive affect in the work context (a hedonic marker of job-related well-being) and that this may lead to increased work engagement (an eudaimonic marker of job-related well-being).

In a broader perspective, this outcome is beneficial to the entire organization since it stimulates an eudaimonia-driven prosocial behaviours and sustain intrinsic work motivation (Gagné and Deci, 2005; Gear *et al.*, 2017; Ryan *et al.*, 2013).

Engaging leadership can create a favourable organizational climate (Bellou and Andronikidis, 2017), but it never acts in isolation from personal characteristics of an employee (Arora *et al.*, 2017). As it was found in our study, age may be a significant correlate of possible engaging leadership outcomes: the older employees felt the lower negative affect and higher work engagement. Therefore, being older can be considered a resource in this context. It also suggests that younger workers may need an extra support to benefit similarly from engaging leadership or – more generally – that their attitude towards work is different.

The current knowledge indicates that engaging leadership is a significant predictor of positive attitudes in employees (Alban-Metcalf and Alimo-Metcalf, 2013; Alimo-Metcalf *et al.*, 2008; Kim and Beehr, 2017). However, the mechanism of this relationship still needs to be recognised, also because of its great practical value. Thus, our findings add to it by highlighting the role of the positive affect, which is in line with a view that engaging leaders act successfully by creating job environment based on congruent values and inspiring their followers (Schaufeli, 2015). The job-related positive affect could be the key driving force that translates the leader's engaging management style into the behaviours of employees.

Limitations and future research

The present study has some limitations. First, the sample was recruited by a professional research company and is non-representative of the population working in public administration. In addition, participation in the study was voluntary but rewarded. Furthermore, the study's cross-sectional design restricts any causal interpretation. The other pattern of relationship between the variables cannot be excluded, namely that affect changes perception of both leadership and work engagement or that work engagement mediates between engaging leadership and job-related well-being. Nevertheless, the theoretical framework of the Job Demands–Resources (Bakker and Demerouti, 2014) is well-established and confirmed empirically and as such enabled testing of the assumed effects. However, we strongly advocate this model to be tested using a longitudinal design, including potentially reciprocal effects in relationship between positive affect and work engagement. Finally, both employee well-being and organizational behaviour is a function of factors located at different levels (i.e., organization, team, individual), which influence each other within and over time (Bakker and Demerouti, 2018). The models including such cross-level interactions should be the next step in research on engaging leadership to make this knowledge ecologically valid and implementable.

Practical implications

Esteve, Schuster and Albareda (2017) have found that decreasing organizational resources in the public sector is related to decreased work motivation. Engaging leadership can build a positive organizational culture, prepare the organization to cope with change and facilitate a proactive attitude toward implementation of leaders' visions (Alimo-Metcalfe *et al.*, 2008). As such the engaging leadership is an important resource that managers can master to enhance the intrinsic motivation of public servants (Christensen *et al.*, 2017).

Our results suggest that to achieve this leaders should mainly focus on enhancing follower's positive affect, instead of reducing followers' negative affect. Thus, making people feel *less worse* at work is not enough. The aim should be to make them feel *better* at work by cultivating their personal strengths (Bakker and Demerouti, 2018), providing meaning and satisfying needs for competence, relatedness, and autonomy (Gagné and Deci, 2005). This translates knowledge from positive psychology into managerial activities to trigger and maintain the transformation of motivation in the employees.

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HOW SOCIAL MEDIA AFFECT BRAND REPUTATION OF A DESTINATION: AN EXPLORATORY CASE STUDY

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ABSTRACT

Given that tourism destinations are increasingly competing on an international scale, places need to promote themselves in order to become more attractive. As tourists can choose between a number of different appealing places, destinations are required to provide something special. Therefore, this paper has the objective of analyzing how destinations can be promoted by consumers throughout social media and how this can result in a specific reputation of their brand. Despite several authors emphasize the important role played by social media in tourism sector, this paper offers a further contribution analyzing the impact of social media on brand reputation of a destination. Such analysis is carried out throughout netnography - a qualitative and ethnographic research methodology that allows researcher to understand the authentic consumption experiences by internet users - and it is applied to the case study of Umbria that, thanks to Viralbeat, monitored the *buzz* generated online by the event Travel Blogger Unite. Findings emphasize how travel bloggers' communication can result in specific brand reputation of a destination. This can be a starting point to address future strategies aiming at distinguishing a place from a tourist destination.

Keywords: Brand Participation, Brand Image, Brand Reputation, Destination Branding, Netnography, Social Media.

INTRODUCTION

According to the Reputation Institute (2013, www.reputationinstitute.com), “For companies with strong reputations, 55% of consumers say that they would definitely buy their products and 50% would be willing to recommend their products to others. For companies with weak reputations, these percentages fall to only 31% willing to buy and just 28% willing to recommend”. That is a significant difference, which explains why companies are working so hard to build consumers’ trust in them and not just in their brands. Social media are a probable source of reputation risks, such as brand/reputation damage, legal and regulatory compliance, security and privacy and employee/HR issues. Tourism is a sector with a very close relationship with the new information and communication technologies. In particular, social media and the Internet have fundamentally reshaped the way tourism-related information is distributed and the way people plan on and consume travel (Buhalis and Law, 2008). Social media represent very important information sources for travellers (Xiang and Gretzel, 2010) and online social networking allows users to interact and provide reviews on local tourist attractions, hotels and other travel-related business. The development of information and communication technologies and their increasing use has radically changed the relationship between the destinations and their visitors (Kiráľová and Pavlíčka, 2015). As for companies, online public opinions expressed throughout social media are creating huge challenges also for the tourism industry; tourist destinations are more and more reputation-dependent (Xiang and Gretzel, 2010). This influence on destination reputation on the part of social media is a central topic for tourist managers who try to manage how a destination is communicated: it is clear that social media have forced them to rethink branding strategies (Marchiori and Onder, 2015; Xiang and Gretzel, 2009). Leveraging off social media to market destinations has proven to be an excellent strategy (Kiráľová and Pavlíčka, 2015). Clarifying these issues is critical from both the theoretical and the managerial point of view in order to create a successful brand process for tourist destinations (Chernysheva *et al.*, 2011). For the motivations expressed above, this study addresses

the following research question: *How do social media affect brand reputation of a destination?* In order to answer this research question, this paper first provides a literature review on the topics of brand reputation, destination perception, and the role of social media in destination branding. In a second stage, the methodology is described and results are analyzed and discussed. Finally, we draw conclusions and show managerial implications and limits, providing recommendations for future researches.

LITERATURE REVIEW

The concept of brand destination

The widely accepted definition of destination branding is provided by Blain *et al.* (2005). According to these authors, destination branding is “the set of marketing activities that (1) support the creation of a name, symbol, logo, word mark or other graphic that readily identifies and differentiates a destination; that (2) consistently convey the expectation of a memorable travel experience that is uniquely associated with the destination; that (3) serve to consolidate and reinforce the emotional connection between the visitor and the destination; and that (4) reduce consumer search costs and perceived risk. Collectively, these activities serve to create a destination image that positively influences consumer destination choice” (p. 337). Building the place brand (Byrom, 2015; Anholt, 2010) requires a long-term commitment that calls for the creation of identity and emotional attachment between the venue and potential visitors (Morgan *et al.*, 2003). Depending on the context, different marketing tactics can be employed, such as the ability to spot the brand values perceived by tourists and promote these values through communication campaigns. When designing niche brands, the main problem is to understand the brand values and develop a long-term branding strategy. The brand values of the place must be sustainable, relevant and communicable and of particular importance to stakeholders and potential tourists. A well-designed brand name helps position a

destination or place from the visitor's point of view and convey specific or symbolic indications of the place (Kohli, Harich and Leuthesser, 2004). However, for destinations, the design and management of the brand is sometimes complicated. The branding of a place (Ntounis and Kavaratzis, 2017; Hafeez et al., 2016) requires the need for global product control, control of marketing budgets and political pressures. On the other hand, destinations or places are products sometimes composed of different components such as accommodation, hospitality, attractions, arts, entertainment, culture, heritage, natural environment and problems (Ritchie and Crouch, 2000).

Destination perception

Nowadays, a destination competes on the basis of its perceived image in comparison to its competitors. They represent a complex construct that results from the images of destination projected and perceived (Marchiori and Onder, 2015; Carballo et al., 2017; Adchauer, 2010). Several researchers (Baloglu and Mangaoglu, 2001; Hosany, Ekinici and Uysal, 2006) support the view that image is a multidimensional construct (Lopez et al., 2011) comprising two primary dimensions: cognitive and affective. Cognitive evaluation refers to beliefs and knowledge about an object whereas affective evaluation refers to feelings about the object (Gartner, 1993). Affective element describes what people feel about a place: it is about loving or not loving it (Coban, 2012). According to Echtner and Ritchie (1991), destination image can be defined not only as the group of perceptions about attributes of individual destinations but as the holistic impressions issued by the same destinations. Five elements are considered by Casalegno and Viassone at the basis of the destination image: functional characteristics (Echtner, Ritchie, 2003); holistic aspect (Reilly, 1990); psychological features (Pellicelli, 2009); attributes (Zhou, 2005) and level of uniqueness (Viassone, 2016; Casalegno and Viassone, 2012). To create a positively-perceived image, it is important to understand how the process of promotional destination information is developed by the visitor. When consumers have not previously visited the

destination, they try to reduce uncertainty by acquiring as much information as possible. For this purpose, Internet is one of the most important ways of collecting tourism information and it *“constitutes a communication channel that many traditional information sources leverage”* (Llodra-Riera *et al.*, 2015, p. 319). In fact a web page can become a fundamental instrument to promote destination and it leads to a strong feeling of destination image in the visitor (Cho *et al.*, 2002).

Brand reputation

According to Kasper Ulf Nielsen, Reputation Institute's executive partner (2013), *“we live in a time when word of mouth is the number one driver of sales and competitive advantage”*. However, *“Investing in reputation will pay off on the bottom line.”* Marchiori (2012, 1) started her dissertation with this thought: *“Reputation is a complex construct which reflects the dynamics of a modern society, that is, people use reputation to simplify information processing when they are overwhelmed by information”*. Brand reputation is defined as *“the aggregate perception of outsiders on the salient characteristics of the [...] brand”* (Veloutsou and Moutinho, 2009, p.315). In particular, brand reputation - as well as technical quality - is modeled as direct antecedent of a buyer's loyalty. It is a meaningful element in the formation of customer loyalty and it is the result of constant customer performance (Gounaris and Stathakopoulos, 2004). This concept evolves all the time, and it is mainly created by the flow of information from one user to another (Herbig and Milewicz, 1993). For these motivations, firms compete for brand reputation knowing that those with a strong reputation across their products can assume higher sales prices, thereby being more powerful than another competitor (Loureiro *et al.*, 2017). In particular, with the progress of information communication technologies (ICTs), brand reputation plays an important role in the tourism industry (Sageder, 2018). More and more tourists express their own opinions online about destinations and, in this way, they can influence individuals in the process of choosing destinations (Komšić and Dorčić, 2016). Throughout different platforms (blogs, virtual communities, wikis, SNSs),

tourists review and rate services received and they increasingly rely on Ewom (E-word of mouth) (De Ascaniis and Gretzel, 2013, 156). In particular, online communication affects reputation because (1) it is one more publishing arena, where people access information and form a mediated experience; (2) applications and usages belonging to the so-called Web 2.0 allow individuals to publish online their opinions through user generated contents (UGC) and/or online conversations. Those individual opinions may be seen as instances of reputation (Marchiori, 2012).

The concept of social media

Social media have changed almost every single industry (Alves et al., 2016; Barger et al., 2016; Gensler et al., 2013) thanks to their highly interactive features, but the travel industry is another story. It has been revolutionized by social media because it really delivers the “in-person” experience thanks to selfie photos, check-ins and status updates. Perhaps even more importantly, customer service and, specifically, customer complaints have really taken the travel industry to a new level. Technology aftermaths on the travel industry are widespread. The Internet has provided tourists with the ability to research vacation destinations with tools like Google Maps, Google Street View, YouTube and Facebook, together with easily scouring for images and online reviews. Social media has made a huge impact on the tourism industry. Consumers engage with social networking sites to research trips, make informed decisions about their travels and share their personal experiences of a particular hotel, restaurant or airline. Social media refer to online services existing on the Web 2.0 platform allowing people to interact and communicate in order to create, share and exchange interests, information and activities in virtual communities and networks at a global level (Dawot and Ibrahim, 2014). The social media platforms allow individuals and communities to create, share and discuss user-generated content which showcases people’s likes, dislikes and activities. Kaplan and Haenlein (2010) suggest that social media are a group of internet-based applications that enable users to interact with other like-minded users to exchange user-generated

content. According to Google Search Traveler 2014 (Google, 2014) (see table. 1), suggestions from friends, family and colleagues are the first source of inspiration for the choice of a trip and the second most influential source in planning the vacation (Ben Youssef *et al.*, 2015). According to Tingly Journal (www.tingly.com), blogs are the most used travel planning resource. Travel bloggers always add inspiration and invaluable advice as well as providing first-hand recommendations and specific reviews.

METHODOLOGY

This paper aims at explaining how social media are able to affect brand reputation of a destination. This goal is carried out throughout netnography, a qualitative and ethnographic research methodology that allows researcher to understand the authentic consumption experiences expressed by internet users in order to direct, reinforce and optimize business strategies (Viralbeat, 2012).

Netnography is a sort of ethnography adapted to the complexity of current social world, a sort of anthropological analysis able to make easier the understanding of life in the era of technologically-mediated culture (Kozinets, 2010). It aims at extrapolating cultural insights starting from data produced by users' communicative practices. This allows to understand meanings associated to a certain brand by web users. In particular, this methodology has been applied to the case study of Umbria, given that this region has monitored the *buzz* generated online by the event Travel Blogger Unite, organized in Umbria in the period 22nd – 25th April 2012. Viralbeat got opinion according to the criteria of saturation, structured on two steps: first, all the posts considered meaningless have been discarded; second, they haven't more inserted cases in the sample when they were overloaded.

About 982 opinions have been collected (531 from blogs, forum, websites and 451 from social networks). Data have been analyzed from different blogs and forums,

Travel Blogger Umbria web site, social network Facebook, Instagram, Flickr, Twitter following the hashtag #tbumbr and #umbria.

After the phase of data collection, a manual data classification has been carried out, in order to allow the elaboration of visualizations, with the aim of providing a summary of the information and to orient the stage of interpretative analysis. For each post or conversation, its different semantic units have been evaluated (Viralbeat, 2012).

FINDINGS

Umbria can be considered an important case study in order to describe how brand reputation of a destination is affected by social networks. In this specific destination, Internet can be considered a communication channel that many traditional information sources leverage (Llodra-Riera *et al.*, 2015, p. 319). It shows also how promotion can directly come from travel bloggers and how the latter can generate a specific brand reputation of the destination.

In order to analyze the brand reputation of this destination as inferred from Social networks, Umbria adopted a listening approach (*netnography*), analyzed in a second time by Viralbeat, a Milan-based Digital Agency specialized in the understanding of online consumption cultures, oriented to identify efficient marketing campaigns and to create lasting relationships between people and brands, with the aim of suggesting Umbria some territorial marketing strategies. For this particular destination, online communication affected reputation throughout the sharing of opinions, stories and conversations (Marchiori, 2012). Results of analysis about web reputation online carried out with reference to Umbria Brand collected 494 opinions from blogs, 320 from Instagram, 76 from Facebook, 55 from Flickr, 35 from the website and 2 from forums. Very interesting are the results concerning opinion sentiment, that is the emotional value associated to semantic objects of analysis. The analysis of sentiment results in a very positive global sentiment (Web+SN) towards Umbria (63.7%). The

most appreciated aspects concern suggestive landscapes, food and wine tradition and the peculiarity of medieval folklore. Negative aspects are very limited (1.6%). They are related to a scarce awareness of the Region (a not-so-known destination brand) and of its typical places (i.e. Orvieto), lack of public transportation/accessibility to some destinations (i.e. Assisi) and scarce awareness of local brands, both entrepreneurial and enogastronomic ones. The most discussed topics are the image of Umbria and Assisi and the subtopics related to Nature (with reference to picturesque and photogenic features of Umbria) and to the food and wine sector (discussed in generic terms, with a few specific references to brands of local products). Throughout netnography it has been possible to analyze customers' stories. From their study, throughout the analysis of sentiment towards Umbria and topics and subtopics, it is possible to discover the ideal image of Umbria, declinable in 5 sub-types. They are defined on the basis of words, tones and descriptions used. More precisely, Umbria is described as: *Tiny Umbria*: when referring to Umbria, people often use pet names to recall also aspects of quiet, uniqueness and slowness, that is a world "in small scale"; characterizing aspects are rarity, refinement, slowness, tranquillity; *Quiet Umbria*: according to travel bloggers, Umbria can be described as a paradise for people fond of relaxing walks and slow rhythms; *Umbria station*: placed in the middle of Italy, this region is considered as a forced stop and this can be viewed as an opportunity to link Umbria attractiveness to more famous brands, even when developing its own image; *Umbria "Hidden Treasure"*: this image refers to something hidden but precious, rich of history and art - it would be interesting to understand if this characteristic depends on the fact that it is far from mass tourist flows; *Authentic Umbria*: it is an example of authenticity because original, a region that reserves surprises, a mould-breaker destination (Viralbeat, 2012); in fact, it is the combination of nativeness (*what has always been*) and originality (*what has never been*) that makes it authentic. In conclusion, starting from opinions and stories by destination bloggers, it is possible to summarize the results concerning Umbria reputation (with reference to the event Travel Blogger Unite) throughout the

following SWOT analysis (Viralbeat, 2012): Strengths: nature, food and beverage, landscapes; Weaknesses: destination awareness, awareness of local brands; Opportunities: forced railway station, pristine and amazing region; Threats: identity resulting from the identity of other destinations.

CONCLUSIONS AND SCIENTIFIC/MANAGERIAL IMPLICATIONS

This paper shows that the concept of brand reputation of a destination can create customer-perceived value. This means that territorial brands mostly promoted by tourists and local shareholders inspire a certain degree of authenticity. In this specific case, opinions of travel bloggers allow to identify brand reputation of Umbria (with reference to the event Travel Blogger Unite) that is described as a tiny, hidden and authentic destination. In particular, it is perceived as an authentic destination because described as a destination not compromised by mass tourist flows. Furthermore, it is a precious destination because rich of secrets and not very famous. These results allow to identify important scientific and managerial implications. First, the strong influence played by social networks (and in particular by opinion sharing) in the definition of brand reputation and the higher and higher importance attributed to sensorial and cultural aspects such as food, wine and medieval folklore, that contribute to convey a certain image of the Region. In the specific case of Umbria, these features (preciousness, authenticity, etc) could be used in a promotional campaign able to express the value that a not very famous destination can own in addition to the desire to become bigger and more famous. In general terms, listening to what people say about a destination offer is the key to managing brand reputation of a destination. If people complain about destination offer (products / services) on social media, managers should be able to find this and to act immediately to remedy the situation. In a hyper-connected social world, the risk of not responding to negative comments or conversations could be enormous. A negative tweet or Facebook post that goes viral will do unimaginable damage to brand reputation of a destination.

In addition, the relationship that a destination establishes with consumers and stakeholders also plays an important role in building the corporation reputation (C3Centricity Consultancy, 2013). For this motivation, more and more the creation of blogs or usage of social media should be incentivated by the same destinations.

Anyway, this paper shows important limits: first, it is based on a single specific case study and, as such, it does not offer opportunities for comparisons; second, it is based only on the analysis of opinions/stories on social media about a destination and it does not propose a way to manage these opinions in order to improve the destination reputation. Third, it does not provide a quantification of the importance played by social networks on brand reputation.

This can be considered the base for further researches aiming at describing a strategy able to convert social media feedbacks about a destination into a specific strategy to improve destination reputation. Furthermore, it should be interesting to extend this analysis to important events of other regions, to identify which elements are more discussed and considered more important and to measure how much opinions shared on social networks can affect brand reputation.

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IDENTIFICATION OF THE BEHAVIOURAL PATTERNS VIA COGNITIVE REFLECTION TEST

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ABSTRACT

The paper investigates whether cognitive reflection skills have an impact on the quality of the consumers' decision-making process in a decision context. In the experiment are providing all standard food items and respondents had to decided which food item preferred more. To analyze this situation, we used the questionnaire which contained special questions related to the identification of logical and intuitive respondents. It was expected that people would prefer a wider variety of food items within the main groups: logical and intuitive.

The aim of the paper is to find out whether there are differences in food preferences between intuitive and logical consumers. The questionnaire contained questions about many areas of catering. Due to the scope of the article we will mention only the most important ones - meat and fats.

It was expected that people would prefer a wider variety of food items within the main groups: logical and intuitive. This hypothesis was not confirmed. Both groups of consumers showed completely similar behavior in food consumption in Slovakia. They try to eat healthy preferring healthy fats to less healthy ones. Concerning the meat consumption, the consumers are income-limited, but the structure of meat consumption is identical.

Keywords : food items, meat, oils, cognitive reflection test, consumer behavior

INTRODUCTION

Food cannot be regarded only as a basic need but also as an important resource that has a huge economic impact on the Slovak households. For this reason, it is necessary to gain knowledge on food demand determinants in order to propose a comprehensive framework of food consumption for agriculture and food and social policy options, which would help reduce food waste and make more efficient use of natural resources. The paper seeks to identify consumption habits through primary sources – by using the survey research. The paper is focused on the consumption of meat, oils and fats

as they belong to the basic foods in nutrition and their consumption is dependent on both, consumer habits and their income.

The Slovak population permanently reduces the consumption of meat. For the first time it fell below 50 kilograms in 2014 when only 47 kilograms of meat were consumed per capita. It is about ten kilograms less than the annual consumption recommended by nutritionists. It signals permanent changes in human nutrition. Compared to 1990, the meat consumption has fallen by more than 30 kilograms (Fiľa, 2010).

In Slovakia, however, consumption of the meat is not reduced, but on the other hand is changed species composition of the consumed meat. People still prefer pork but in the past decade the annual consumption of pork per capita fell under 30 kilograms. In spite of that, the recommended consumption of pork is only 22.2 kilograms.

The poultry market is a twin. Its consumption fell after 1989 but then the poultry quickly picked up the pig meat. On the one hand, the reason was economical but, on the other hand, people also listened to doctors who stated that chicken is a dietetic and easily digestible meat. However, the current consumption is less than 20 kilograms, the last numbers speaks for only 17 kilos of poultry consumption. (Rovný et al., 2014; Berčík et al., 2016)

Although people in Slovakia most commonly consume sunflower oil, there has been observed an increase in the consumption of olive oil. This is also related to the changing trend of eating in Slovakia and to the citizens' desire for a healthier lifestyle.

Slovak households use mostly edible oils. Despite the slight decline in GfK (Note. company for gain relevant market and consumer information) in the first half of 2007, slovak households still retained the largest 49% share of the oil and fat market in terms of volume. Edible oils are margarines (33%) and butter (10%).

Slovaks generally do not add the recommended amounts of carbohydrates and crude fiber. Consumption of butter and pork ointment, it is a long-term decreasing trend in the consumption of these vital fats.

The biggest deficiency in our diet is the consumption of up to half as much fat as it is recommended. The annual consumption in the SR is 23 kg. Although it decreased in previous years, the poor fat structure has been highlighted.

Graffeo et al. (2015) were interested in expanding the current knowledge about the characteristics of economic behavior by studying the influence of two cognitive skills: Numeracy and Cognitive Reflection. While it has already been shown that higher levels of cognitive skills (e.g., ability to plan, memory, etc.) are associated with better choices (Burks et al., 2009; Christelis et al., 2010), the comprehension of the link between decision processes and cognitive skills is still limited. In addition,

the association between CRT scores and choices has been little studied in the context of the economic domain – one of the few examples is the study by Finucane and Gullion (2010).

To analyze this situation, we decided to use the questionnaire, which contained special questions related to the identification of logical and intuitive respondents. It was expected that consumers belonging to two main groups, logical and intuitive, would present different preferences in the food consumption.

METHODS AND MATERIAL

The questionnaire was chosen as a method of research. The survey was conducted online via Google Documents or through social networks and email but also at universities in printed version from September to December 2017.

Chi-square test of goodness of fit verify the representativeness of the sample in terms of gender and income. The representativeness has been confirmed. The survey included 280 respondents, who were asked for a questionnaire on the topic of Consumer Behavioral Paradoxes. The questionnaire was sent to the students of our university. The aim was a homogeneous sample of young people. If the questionnaire was filled through social networks, we should have no control over the structure of respondents in terms of age.

Consequently, we analyzed and compared respondents' opinions. We used The Cognitive Reflection Test (CRT) to identify whether the responds are logical or intuitive.

The Cognitive Reflection Test (CRT; Frederick, 2005) is designed to measure the tendency to override a proponent response alternative that is incorrect and to engage in further reflection that leads to the correct response. In this study, was showed that the CRT is a more potent predictor of performance on a wide sample of tasks from the heuristics-and-biases literature than measures of cognitive ability, thinking dispositions, and executive functioning. Although the CRT has a substantial correlation with cognitive ability, a series of regression analyses indicated that the CRT was a unique predictor of performance on heuristics-and-biases tasks. It accounted for substantial additional variance after the other measures of individual differences had been statistically controlled. We conjecture that this is because neither intelligence tests nor measures of executive functioning assess the tendency toward miserly processing in the way that the CRT does. The study argue that the CRT is a particularly potent measure of the tendency toward miserly processing because it is a performance measure rather than a self-report measure.

The CRT is a popular three-item test (Frederick, 2005) thought to assess cognitive reflection because the items bring to mind intuitive but wrong solutions that have to be overridden. The prototypical CRT problem is the bat and ball problem: "A bat and a ball cost \$1.10. The bat costs \$1.00 more than the ball.

How much does the ball cost?" The response "10 cents" is thought to come to mind for most, if not all, people, and many people answer "10 cents." Some people realize that the intuitive response is incorrect, however, and researchers have believed that calculating the correct answer is straightforward at that point: "catching [the] error is tantamount to solving the problem" (Frederick, 2005). Kahneman (2011) called the bat and ball problem "a test of people's tendency to answer questions with the first idea that comes to mind, without checking it". Consistent with this view defines Cognitive Reflection as the tendency to check and detect intuitive errors, and call the hypothesis that it is the important aspect of the CRT, the Cognitive Reflection Hypothesis.

In support of the Cognitive Reflection Hypothesis, Frederick (2005) briefly noted several pieces of unpublished evidence. In particular, people who responded correctly sometimes wrote the intuitive answer in the margin and described thinking about the intuitive answer in verbal reports, indicating that the intuition did come to mind. People who answered incorrectly thought the bat and ball problem was easier than those who answered correctly (incorrect responders judged the proportion of others who answered correctly to be higher than correct responders did), indicating that those who responded intuitively were unaware that the intuition was wrong. Inconsistent with this reasoning, however, De Neys et al. (2013) found that correct responders were more confident about their responses than incorrect responders. Frederick (2005) also noted that some people who perform badly on the CRT nonetheless are able to solve similar problems that do not have incorrect intuitive solutions (e.g., "a banana and a bagel cost 37 cents. The banana costs 13 cents more than the bagel"). However, Bourgeois-Gironde and Van der Henst (2009) subsequently demonstrated that most people answer these problems incorrectly anyway (58% incorrect; see also Mastrogiorgio and Petracca, 2014).

To explain his findings, Frederick (2005) invoked a dual-systems model of decision making. In it, intuitive System 1 processes are quick and effortless, whereas deliberative System 2 processes are slow and controlled. System 1 quickly makes an intuitive response available in decision making; System 2 then may check the response and engage in further reasoning if an error is detected (Kahneman and Frederick, 2002; Kahneman, 2003). Importantly, System 2 is activated only after System 1 processing is complete. This temporal rigidity distinguishes it from dual-process explanations of judgment and decision making that posit more interdependencies between the two modes of thought (Loewenstein et al., 2001; Slovic et al., 2004). Many biases are said to occur due to System 1's incorrect intuitions, so that people who check their intuitions (e.g., those scoring high on the CRT) should be less biased decision makers.

Consistent with this prediction, several studies have found correlations between the CRT and decision biases. In his original paper, Frederick (2005) found that people with lower CRT scores tended to be more impatient and risk averse, therefore failing to maximize expected utility.

Each of these researchers assumes that differences in CRT performance indicated differences in the ability to detect and correct incorrect intuitions (i.e., the Cognitive Reflection Hypothesis). They also implicitly assume that numeric ability is an irrelevant detail when it comes to solving CRT and related problems. Contrary to this view, however, Baron et al. (2014) recently found that traditional CRT problems have no more predictive power with respect to moral preferences than similar arithmetic items without intuitive answers. These findings suggest that numeric ability may be important to CRT performance.

In the present survey, we used following CRT test containing 3 questions:

1. A bat and a ball cost \$1.10 in total. The bat costs a dollar more than the ball. How much does the ball cost? ____ cents
2. If it takes 5 machines 5 min to make 5 widgets, how long would it take 100 machines to make 100 widgets? ____ min
3. In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? ____ days

What characterizes these problems is that a quick, intuitive answer comes to mind, but that this quick answer is incorrect. The key to deriving the correct solution is to suppress and/or evaluate the first solution that springs to mind (Frederick, 2005). The solution to the bat-and-ball problem is 5 cents, to the widget problem is 5 min, and to the lily pad problem is 47 days.

In the present research found that according CRT test survey has 142 intuitive respondents and 117 logical respondents. Our intuitive behavior prevails in our sample. Kahneman (2003) writes that those who are guided by intuition in logical problems tend to be more explosive, impatient, and mad after immediate satisfaction. From the point of view of food consumption, these respondents may prefer better and more expensive foods, or follow diet trends and, accordingly, prefer certain types of foods. Logical respondents are more cautious, one might say that they are even more lenient, and this is reflected in their preference for food.

From the methodological aspect was applied Chi square test of independence for identifying dependence between consumption of meat and fats and classification questions.

The aim of the paper is to find out whether there are differences in food preferences between intuitive and logical consumers. The questionnaire contained questions about many areas of catering. Due to the scope of the article will mention the most important - meat and fats.

RESULTS AND DISCUSSION

When looking at the structure of respondents, it can be said that they are mainly young people under the age of 34. In this aspect of the research we later realized that we had put in the questionnaire to "housing with parents." Because many young people are still with their parents. So if marked own housing, it may not be quite true. Hardly any young person under 24 owns their own house or flat. Household income also corresponds to the real statistics of the Statistical Office, but the sample is not homogeneous in all income groups. We are also interested in whether the respondents live in a house or an apartment. This is also the source of many consumer habits. Surprisingly, 60% of respondents live in the houses. Slovakia's housing trend is changing. People are leaving the flats for home, and the survey also confirms this.

Chi-square test of goodness of fit verifies the representativeness of the sample in terms of gender and income. The representativeness has been confirmed. The survey included 280 respondents, who were asked to complete a questionnaire on Consumer Behavioral Paradoxes. The questionnaire was sent to the students of our university. The aim was to get a homogeneous sample of young people. If the questionnaire was shared via social networks, we would not have a control over the structure of respondents in terms of age.

Consequently, we analyzed and compared respondents' opinions. Based on their CRT test response, the respondents were divided into two groups.

The selection of respondents consisted of the following procedure:

In the questionnaire was an intuitive answer springs quickly to mind: "10 cents. But this immediate answer is wrong. Anyone who reflects on it for even a moment would recognize that the difference between \$1.00 and 10 cents is only 90 cents, not \$1.00 as the problem represent. In the next case, catching that error is tantamount to solving the problem as nearly everyone who does not respond "10 cents", in fact, gives the correct answer: "5 cents." In a study conducted at Princeton, which measured time preferences using both real and hypothetical rewards, the respondents answering "10 cents" were found to be significantly less patient than those answering "5 cents." Motivated by this result, two other problems giving the possibility for impulsive and erroneous responses were included together with the "bat and ball" problem to form a simple, three-item "Cognitive Reflection Test" (CRT) shown in Figure 1.

The three items on the CRT are "simple" in the sense that their solution is easily understood when explained, yet reaching the correct answer often requires the suppression of an erroneous answer that springs "impulsively" to mind. The proposition that the three CRT problems generate an incorrect "intuitive" answer is supported by several facts. First, among all the possible wrong answers people could give, the posited intuitive answers (10, 100 and 24) dominate. Second, even among those

responding correctly, the wrong answer was often considered first, as it is apparent from introspection, verbal reports and scribbles in the margin (for example, 10 cents was often crossed out next to 5 cents, but never the other way around). Third, when asked to judge problem difficulty (by estimating the proportion of other respondents who would correctly solve them), respondents who missed the problems thought they were easier than the respondents who solved them. For example, those who answered 10 cents to the "bat and ball" problem estimated that 92% of people would solve it correctly, whereas those who answered "5 cents" estimated that "only" 62% would do so (both were considerably overestimated.) Presumably, the "5 cents" people had mentally crossed out 10 cents and knew that not everyone would do this, whereas the "10 cents" people thought the problem was too easy to miss.

Concerning intuitive respondents, in Figure 1 we can see that the intuitively-thinking respondent prefers butter to margarine and olive oil and sunflower oil to rapeseed oil. As to the meat consumption, it is clear that poultry is consumed the most, followed by pork and fish whose consumption is at the same level. The consumption of beef is a bit lower than the consumption of pork and fish, and the least consumed meat is wild meat, which belongs to more expensive types of meat.

Intuitive respondents show a pattern in their behavior related to a healthy lifestyle dictated by nutritionists. Food items such as margarine or rapeseed oil have long been degraded as junk foods, and it can be also seen in the preferences of respondents.

Respondents who responded logically to the CRT test have similar preferences as intuitive respondents. Figure 2 shows that the majority of logical respondents (103) prefer butter to margarine. 94 respondents prefer sunflower oil and 86 respondents consume olive oil. Concerning the meat consumption, the survey results are quite similar: 112 respondents prefer poultry, followed by pork (98) and fish (86).

Looking at GfK's (Note. company for gain relevant market and consumer information) claims: Sunflower oil still holds the largest share (49%) of the oil and fat market in terms of volume. Edible oils are margarines (33%) and butter (10%).

From our survey it is clear that the consumption of sunflower oil was confirmed as well as the upward trend in olive oil consumption.

On the other hand, although the statistics confirm an increase in margarine consumption, the respondents included in our survey claim the exact opposite.

Similar situation may be observed in relation to the meat consumption. The structure of meat consumption in our survey is similar to that monitored by the Statistical Office of the Slovak Republic. Nevertheless, the results of our survey have not been confirmed again in the case of fish consumption. Our respondents state that they also consume fish, percentage rate in the questionnaire is at the level of pork consumption, but the macroeconomic data on consumption do not confirm it.

The paper would like to confirm statistically the fact that there are no difference in the preferences of food items consumed by logical and intuitive respondents. Mann-Whitney has confirmed in the test that there is no difference in preference between the analyzed groups.

An analysis of preferences or group analysis completes one more analysis, namely, the analysis of preferences in terms of demographic issues. Our effort was to find out if there exists a significant difference in responses in terms of gender, types of housing and income.

Table 2 shows the probabilities of the Chi square test of independence. Values less than 0.05 confirm the dependency between the pairs of examined questions. Dependence was demonstrated between margarine and the types of housing in intuitive respondents. Examined dependence was very weak.

Subsequently, the dependence was confirmed between olive oil and kind of living in the group of intuitive respondents. As it can be seen in Figure 3, the respondents who prefer olive oil live in their own flat or house. As young people who do not expect housing expenditures, they can afford to buy and consume olive oil.

The last dependence was between the consumption of beef and kind of living and income of intuitive respondents. The consumption of beef is very specific in Slovakia. It has gone through a turbulent period in the development of prices that reflected the consumption of beef. It certainly belongs to nutritionally valuable foods. The results of the survey show that the consumption of beef depends on income and housing. Respondents who rent a house, flat or apartment will not be able to buy beef because they spend most of their money on paying the rent. The last observed dependence was confirmed by the impact of the beef consumption on the income. Higher income groups can afford to buy this type of meat.

The research expected people to prefer a wider variety of food items within the main groups: logical and intuitive. This hypothesis has not been confirmed. Both groups of consumers show a completely similar behavior in food consumption in Slovakia. They try to eat healthy, preferring healthy fats to those which are less healthy. Concerning the meat consumption, the consumers are income-limited, but the structure of meat consumption is identical.

The CRT test gave us an interesting selection of respondents. It would certainly be interesting to structure other age groups - retirees or middle-aged people.

CONCLUSION

Consumers often have to decide on the most appropriate economic option from the list of alternatives, and literature shows that they sometimes choose badly in terms of risk and uncertainty (Kahneman, 2003). Consumers also show poor performance when coping with riskless choice. Our research is aimed

at expanding the current knowledge about the characteristics of economic behavior by studying the influence of the cognitive skills: Cognitive Reflection.

The research expected people to prefer a wider variety of foods within the main groups: logical and intuitive. This hypothesis has not been confirmed. Both analyzed groups show a completely similar behavior in food consumption in Slovakia. They try to eat healthy, preferring healthy fats to those which are less healthy.

On the other hand, it must be mentioned that there were differences between options made by the respondents and real data from the Statistical Office of the Slovak Republic. According to JFK's claims: Sunflower oil still holds the largest share (49%) of the oil and fat market in terms of volume. Edible oils are margarines (33%) and butter (10%). From our survey it is clear that the consumption of sunflower oil was confirmed as well as the upward trend in olive oil consumption. Although the statistics confirm an increase in margarine consumption, the respondents included in our survey claim the exact opposite. Similar situation may be observed in relation to the meat consumption. The structure of meat consumption in our survey is similar to that monitored by the Statistical Office of the Slovak Republic. Nevertheless, the results of our survey were not confirmed again in the case of fish consumption. Our respondents state that they also consume fish, percentage rate in the questionnaire is at the level of pork consumption, but the macroeconomic data on consumption do not confirm it.

These findings should be interesting for both marketing experts and consumer policy makers. Furthermore, findings suggest that the attributes that characterize an effective decision-maker include particular cognitive skills.

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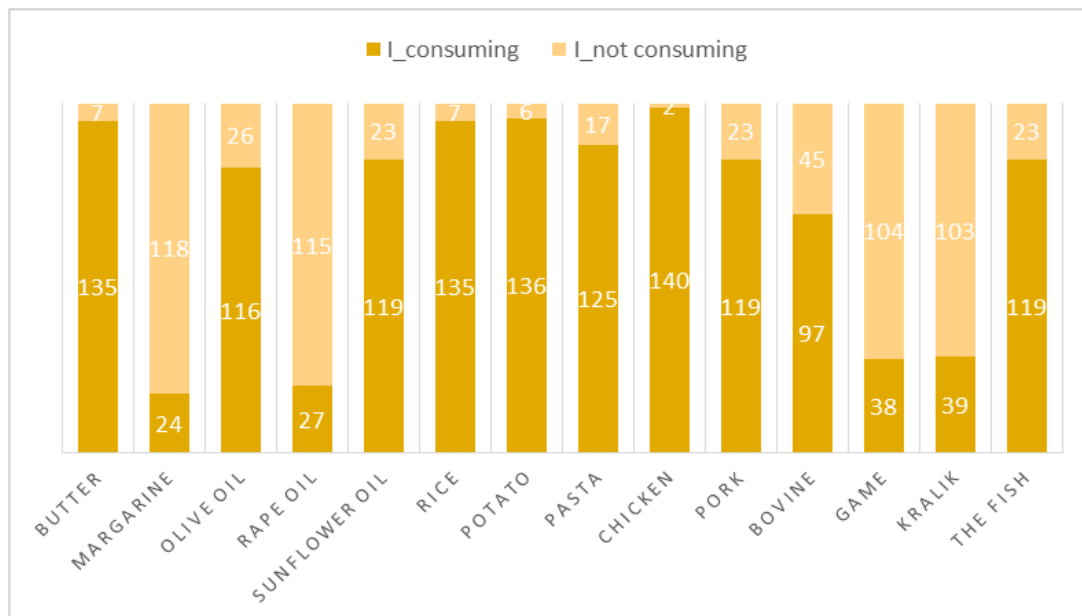
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TABLES AND FIGURES

	Intuitive respondents	Logical respondents
Gender		
Male	20,00%	21,69%
Female	80,00%	78,31%
Age		
18 - 24 years	97,14%	97,87%
25 - 34 years	2,86%	2,13%
Way of living		
rent	24,29%	13,23%
own living	75,71%	86,77%
Income (netto)		
above 1200 eur	32,86%	35,45%
1001 - 1200 EUR	14,29%	16,93%
801 - 1000 EUR	20,00%	21,16%
601 - 800 EUR	12,86%	8,47%
401 - 600 EUR	8,57%	8,47%
200 - 400 EUR	11,43%	9,52%
Kind of living		
flat	39,71%	41,94%
house	60,29%	58,06%

Table 1. *Basic characteristics of the respondents*

	Intuition	Logic	Intuition	Logic	Intuition	Logic	Intuition	Logic
	Sex	Sex	Kind of living	Kind of living	Income	Income	Type of living	Type of living
butter	0.9875	0.0802	0.0720	0.0165	0.0920	0.3154	0.0740	0.5830
margarin	0.3743	0.0403	0.2968	0.1608	0.9463	0.6050	0.0420	0.8226
olive oil	0.4039	0.4296	0.0415	0.1379	0.2360	0.0647	0.1526	0.1992
rape oil	0.9035	0.0214	0.2072	0.9048	0.4504	0.7758	0.4809	0.8072
sunflower oil	0.4170	0.9515	0.2204	0.2737	0.4232	0.3037	0.6286	0.2477
poultry	0.1414	0.1354	0.5103	0.0986	0.3089	0.3110	0.0766	0.4986
pork	0.6185	0.0437	0.9765	0.8648	0.5037	0.9418	0.3589	0.8833
beef	0.2254	0.0992	0.0050	0.6619	0.0124	0.2810	0.3209	0.3090
wild meat	0.0678	0.3866	0.5145	0.1199	0.0746	0.4717	0.6509	0.5470
fish	0.8754	0.4296	0.4296	0.1366	0.6831	0.8476	0.3589	0.1942

Table 2. *Dependence between questions and demographic questions*Figure 1. *Comparison of the answers – intuitive respondents*

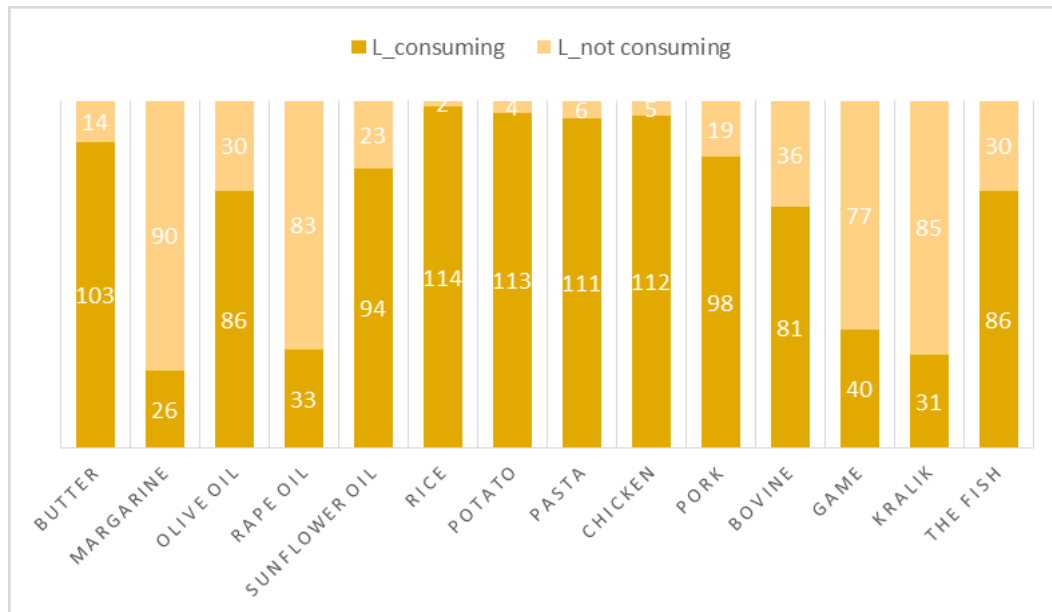


Figure 2. Comparison of the answers – logical respondents

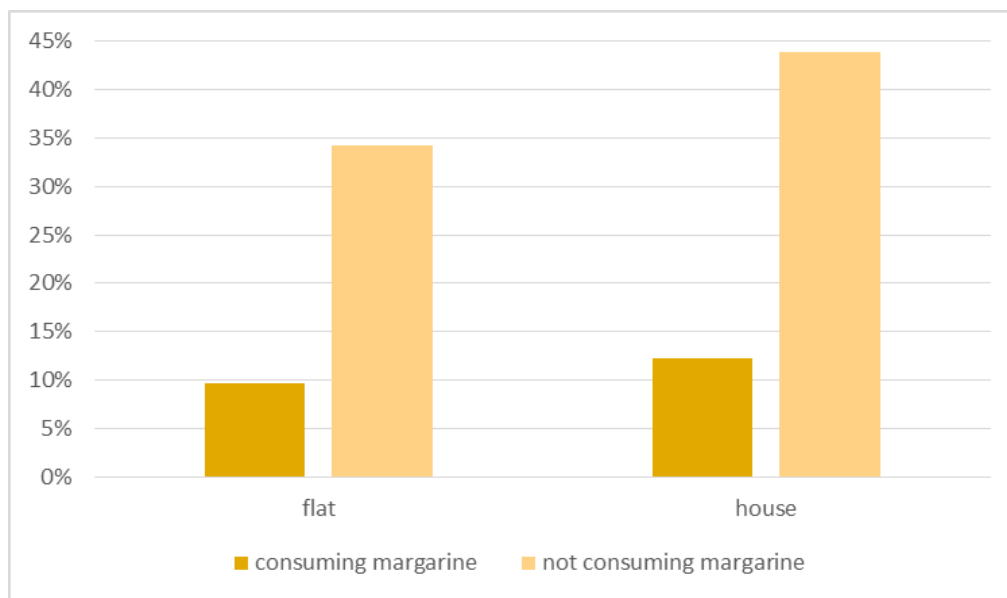


Figure 3. Dependence between consumption of olive oil and way of living

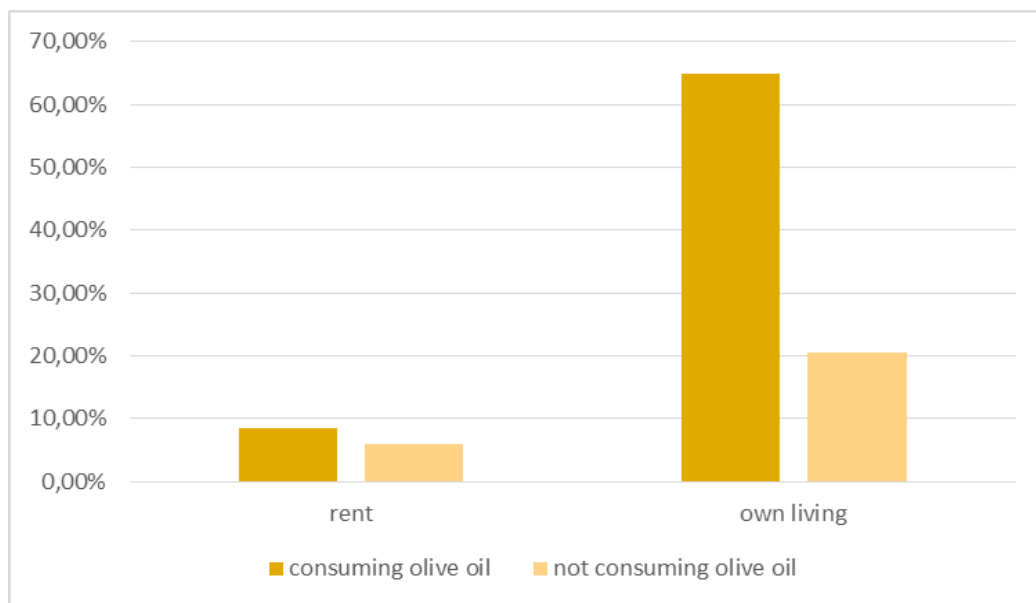


Figure 4. *Dependence between consumption of beef and way of living*

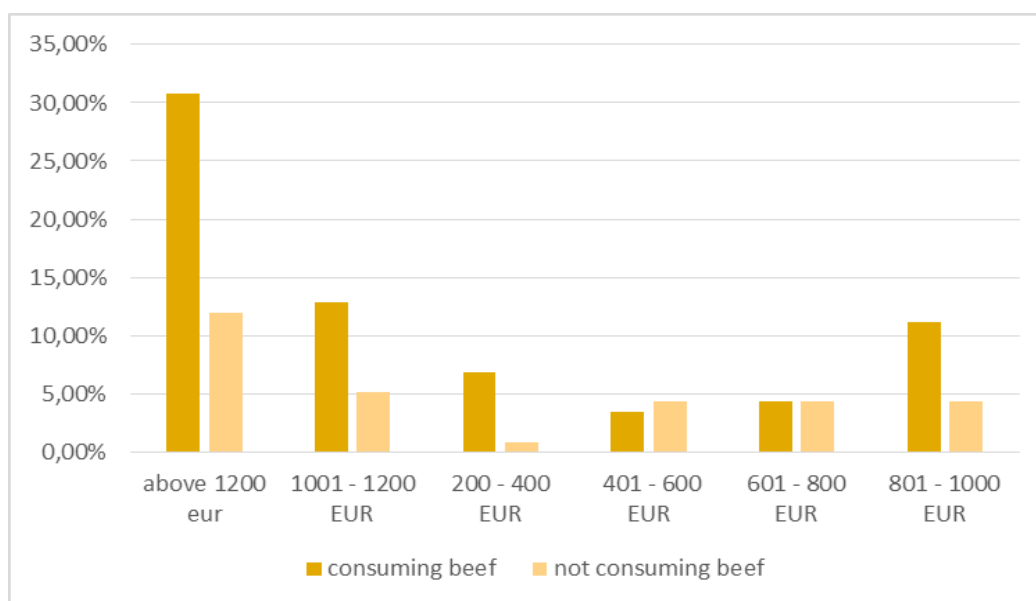


Figure 5. *Dependence between consumption of beef and income*

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A PLANNING AND CONTROL SYSTEM BASED ON SOCIAL WELFARE INDICATORS USEFUL WAY TO GUIDE THE GOVERNANCE FOR SUSTAINABLE HEALTHCARE MOBILITY

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ABSTRACT

New Public Management has changed the way we perceive and at the same time govern public health companies. In a period of economic crisis and reduction of available resources, the new objective is to identify new indicators, including non-financial ones, to plan resource allocation and production choices. The applied method is quantitative subjective, the theory is demonstrated through the focus of a theoretical assumptions. The carried-out elaboration, after having identified the variables considered and the possible mathematical relationship between variables (for example a synthetic index of mobility), defines the relationship between them through linear regression and through a multivariate statistical analysis. All statistical analyses were performed using STATA and p value <0.05 was considered significant for all analyses. The choice of mobility for acute performance in the ordinary regime between regions in Italy is used as case study. Stakeholders could be influenced by non-economic and non-subjective information such as social indicators, by objective indicators such as the achievement of minimum levels of assistance in each region or some objective BES indicators. A positive correlation is observed between the synthetic mobility index and the perception of health. Furthermore, the synthetic mobility index decreases with the difficulty of access to services. The economic factor GDP per capita continues to influence both social indicators and the achievement of minimum levels of service. The challenge of the new millennium is the identification of non-economic indicators useful to support the classic economic indicators that are not always representative of the real welfare of the population.

Keywords: NPM, healthcare mobility index, social index, healthcare production choice, healthcare governance choice, information, acute ordinary regime, LEA, GDP, sustainability.

INTRODUCTION

Theoretical Background

The company is a man-to-man instrument (Ferrero, 1968). Public companies use public resources to provide goods and services to citizens in order to answer to an anthropological need (Puddu, 2001). Accounting, needs and responsibility are closely linked to ethics (Grbac & Lončarić, 2009). The corporatization of public bodies is part of a process launched in Europe between the 80s and 90s aimed at answering to the new requirements of public spending's rationalisation. This process is identified in literature as New Public Management (NPM) and corresponds to the collection of management and leadership practices gradually introduced in the public sector. NPM is a generic term for a variety of management ideas, often borrowed from the private sector, which introduce ideas and tools such as competition, privatization, management by objectives, decentralization, etc. in the public sector (Hood, 1991, 1995). The NPM movement has its origins in a critique of the traditional way of exercising control and management of public organizations as a requirement for greater efficiency in the public sector. Using the tools developed in the private sector to manage public affairs is possible through the implementation of a communication path aimed at all stakeholders and, in particular, at citizenship. In the public sector, information and communication are made possible through reporting and budgeting tools (Biancone et al., 2016). An organization can have many stakeholders and, consequently, a wide range of actual or potential users of financial reporting. The approach to stakeholders spread in the 80s considers the corporate choices not only aimed at maximizing shareholders, but also for the maximum benefit of the community, not only economic, but for all those who have a relationship with the company. Stakeholders are defined, in the first definition, as groups which would cease to exist without the organization (Freeman & Reed, 1983). In the public shareholder and specifically in health companies, the citizen is the subject interested in reaching and satisfying the needs. The involvement of all the stakeholders must create a mapping of the interested parts, the top management in the company governance is required to involve both the passive and the active stakeholders in the decisions (Freeman et al., 2007). The theory based on the rights of the different stakeholders focuses attention on all those groups that might have an interest in the provision of the service (Mitchel et al., 1997). The main users of the health service are citizens, who in a new perspective of public companies answer to the need by providing useful and essential information for the production, becoming themselves producers of the service. Co-production does not simply involve bilateral relations, there are multiple relationships between health service customers and other stakeholders. In the health service, Hyde and Davies (2004) found a complex interaction between organizational design and customer interactions that co-produces care through a series of relationships. Co-production by users and communities has provided an important

integration mechanism, bringing together a wide variety of stakeholders in the public interest, frequently ignored and usually underestimated in its potential to increase the effectiveness of service delivery policies. This framework suggests the need to recontextualize the provision of services as a process of social construction in which the actors of self-organizing systems negotiate rules, norms and institutional frameworks rather than taking the rules of the game as given (Bovaird, 2007). In company planning, access to information by the user could be a key element for the definition of the financing of services and the level of output of the company. Eysenbach and Jadad (2001) hypothesize that decisions and care choices are possible for patients through the use of the Internet, obtaining clinical information on performance and online results is seen as sufficient factor to guide the choice with respect to the doctor or to the most appropriate medicines, however, there is no evidence on the actual choice of the patient with respect to the progress of the health system. Other authors have shown that the availability of information is not sufficient to guide the choice and that there is an information asymmetry between the information that the user has and the choice of treatment (Bloom et al., 2008). The citizen often approaches public management only when needed and is not really aware of all the services provided, of the quality of services and of the capacity of the health service to answer to the need in each region (Pica and Villani, 2010). The theory linked to the type of information useful to guide the planning of the health care company has not yet fully analysed how much information and indicators available to the main stakeholders can affect the service and the choices of production and company governance.

Research question

The conducted analysis aims to demonstrate that social indicators and levels of achievement of business results are related to the choice of consumer care, and whether the choice is also related to the overall perception attributable to each Italian region. Normally the choice of governance of service delivery according to need is based on the collection of health needs. It is assessed whether the allocation of resources based on citizens' perception is possible thanks to social indicators. Paying attention in parallel to the satisfaction of the citizen and the ability of the health company to answer to the need. The essential level of provision of benefits should affect the choice of mobility of the citizen and should no longer be connected to the per capita availability of GDP (gross domestic product) in each region. It is discussed whether the economic perspective is now far from the true satisfaction of the needs and choices of the citizen, or if availability remains an important indicator that directs the choice of active mobility among regions, thus providing a indicator flooded of satisfaction.

MATERIALS AND METHOD

Method

The conducted analysis is quantitative subjective, the theory is demonstrated through the focus of a real case in order to increase the understanding of theoretical assumptions (Burrell, and Morgan, 1979). The carried-out elaboration, after having identified the variables considered and the possible mathematical relationship between variables (for example a synthetic index of mobility), defines the relationship between them through linear regression and through a multivariate statistical analysis. All analyses were verified with a robustness test that confirms the significance of the relationships. All statistical analyses were performed using STATA V.13 (Stata Corp, College Station, Texas, USA, 2013) and p value <0.05 was considered significant for all analyses. The case study takes into account data on regional mobility in Italy in 2014, 2015, 2016, the welfare indicators of the “BES” project for the years 2015, 2016, 2017, data provided by the ISTAT platform “Health for all” on economic variables (GDP), population and mortality index, and finally the LEA indicators defined by the Ministry of Health of Italy for 2014 and 2015.

Used variables

Accountability and sustainability through social indicators

In recent years, scholars and operators compare the different health systems, paying attention to increasing national and regional needs. In particular, a debate has developed around the technical efficiency of health policies, understood as the ability of public policies to pursue quality health performance by making best use of available resources (Retzlaff-Roberts et al., 2004). With the economic crisis of 2008, the descriptive and interpretative efforts of the various health systems increased dramatically, also in comparative terms (Levy and Sobolev, 2016). The scarcity of available resources and the consequent cuts in public spending, indeed, have raised the question of the model and type of health, in the legitimate attempt to identify the institutional structures and production solutions comparatively more efficient than the others, also in relation to the system outcomes. For a couple of decades, economists, sociologists and psychologists have been working together to develop indexes that reflect quality of life developments better than GDP statistics. “Happiness formulas” were also invented by combining various criteria of welfare measurement with measures of subjective perception of individuals about their situation. During this period there has been much theoretical concern for the study of the competitiveness exercised by experts and international bodies by experts from the academic sector and consulting businesses. Most of these studies describe the main determinants of economic performance on competitiveness and the interdependence between a country’s current socio-economic development and its potential growth. Gross domestic product is the most widely used indicator in the measure of economic activity, but has numerous flaws. It is able

to measure only market production, without recourse to market prices, and does not take into account consumer surplus or produced externalities. The current recession did not happen because we could not follow the kind of advice given by this Commission; the current recession took place for a cyclical process that is part of the nature of the economic system (Leunig, 2011). The European Observatory on health systems and policies has published studies that are more complete and methodologically based on comparative analysis, both on the functioning of health systems and on the reforms and political initiatives started or under way in the European countries belonging to the World Health Organization. For its part, in 2008, the Organization for Economic Cooperation and Development (OECD) promoted a sciential survey on governance systems and decision-making, responsibilities and financial resources available in the various OECD countries. (Paris et al., 2010). It is also to be considered that the creation of too many indexes by the created commission could make the relationship not interpretable and not general, returning the role of main indicator of comparison to GDP. The Commission's report on the measurement of economic performance and social progress is vaguely interesting, but offers little in terms of historical economic value. It does not give alternatives over time as the different companies have implemented the shares based on the different indexes. It is estimated that, taken as a whole, changes in per capita GDP may overestimate or underestimate economic performance and social progress, or that this measure is more or less accurate for different countries or for different periods of time. Indicators and composite indexes are increasingly recognized as useful tools for policies because they bring information about a country's performance (Landry et al., 1999). The main advantage of an indicator is its ability to synthesize complex information from our dynamic world into a manageable amount of meaningful information. Some scholars claim that there are no ideal planning tools to achieve sustainability either on a regional or local scale (Keiner, 2006). Recently, politicians have begun to encourage scientists to improve models and develop new techniques to integrate quantitative and qualitative analysis for local and regional planning of sustainable development (Grosskurth and Rotmans, 2007). In particular, the correct choice of indicators is essential to monitor progress towards sustainable territorial development. Accountability is one of the results of NPM and involves those who perform a function of planning, management or control, as a responsible subject towards those who accept the effects of the exercise of these functions (Ricci, 2005). NPM and New Public Management increasingly increase the need for transparency, the citizen wants to know and wants to decide services, but in the health sector is not sure whether he/she is able to perceive and choose on the basis of the information at his/her disposal. With reference to a territory, if it is reported, it is because there are subjects to whom account must be given and, at the same time, there are some subjects who feel the need and the responsibility to report on the actions taken. The social responsibility of the territory is an approach to development that is

being imposed in the search for sustainable models on a global scale. The social sphere is at the centre in its widest and most complete meaning, including and exceeding the economic categories and the needs of profit.

Bes and social indicators

BES is the project to measure fair and sustainable wellness, is part of the international debate on overcoming the GDP, fuelled by the awareness that the parameters on which to evaluate the progress of a company cannot be exclusively economic, but must also take into account the fundamental social and environmental dimensions of well-being, accompanied by measures of inequality and sustainability. The document was presented in its fifth edition on December 15th 2017. BES (Fair and Sustainable Wellness) is based largely on the OECD framework. It represents a demanding challenge in this document because it seeks to integrate wellness with equity and sustainability. This involves significant theoretical problems that need to be clarified and resolved before the technical methodological discussion can be started on how to measure the dimensions present in the various domains. Bes is a process that takes the multidimensionality of wellness as a starting point and, through the analysis of a large number of indicators, describes all the aspects that contribute to the quality of life of citizens. In this context, official statistics must keep up with the growing demand for statistical information of quality. It is then up to citizens and their representatives to choose which dimensions of wellness are able to return more value and on which it is opportune to invest, with the awareness that the achievement of some objectives could compromise or delay the achievement of others. Bes can also assist the public administration in the decision-making process and at the same time provide the citizen with information that guarantees transparency and a reading key also linked to the services that the company offers. It is important the influence that the community and the level of public acceptance have on social indicators and therefore on the possibility of using them for comparison (Jones et al., 2012, Gutierrez et al., 2011). The functions of the public company can therefore be representative on an aggregated level both in quantitative and qualitative terms of achievement of the programmed results, and through a comparison and a key of interpretation as regional statistical indicators of reference on specific activities. In a complex system it is necessary to look for common reading keys and broad indicators that allow to understand the work of Governance, Culture and the Economy of a territory. In our analysis it is possible to consider the 2015 health compound indicator as an effect of the 2014 financial year to assess the perception of health, the same indicator is also present for the year 2016 as an effect of the perception of 2015 while it is not possible comparison with the third year of 2017 as ISTAT preferred not to make this indicator more explicit as a reference to the health perception trend, replacing it with a series of objective measurement indicators. Among the indicators used to evaluate the perception of the different regions also the

composite of education and training, the composite of income and social inequality, the composite of unease, the composite on social relations, the trust in other types of institutions (territorial health and public bodies), the rate of innovation and product of the service on the productive system and the difficulty of access to some services. In 2017 the composite indicators are reduced not allowing an appropriate comparison, although the analysis is still conducted, it is also reported that some indicators are replaced by others. The social indicators BES are both objective and subjective type, the first is based on the objective quantitative evaluation with a ratio between quantitative factors, the second is qualitative based on survey, in this case it is a question of non-objective variables but represent the evaluation of users. Both in 2014 and 2015, the number of residents and per capita GDP can be assessed. In the two years through another ISTAT project called "Health for all Italy", database of indicators on the health and health system in Italy, structured in such a way as to be interrogated by the HFA software provided by the World Health Organization adapted to national needs, it is also possible to evaluate the mortality indicator as an objective indicator of evaluation of health services for each region. The data for 2017, unfortunately, both on the per capita GDP per region and as regards the mortality rate are not yet available, therefore only the data useful for the analysis are represented. The indicators and data available for each year can be identified in Table 1, Table 2 and Table 3 for quick representation and are made up of observable objective variables and subjective variables based on the perception of residents as the perception of wellness (health). The empty boxes in the tables represent the missing data for the BES indicators or not yet available for the other values because not processed by the national statistical service. The indicators and tools used are placed in the international discussion thanks to projects of assessment of governance, accountability and perception by similar stakeholders such as the use of indicators to assess the perception of health, mortality, wealth of families, indicator composed of quality of the service provided in the OECD countries (Biancone et al., 2018). Access to the tables (*Table 1: Mobility and variables for 2014; Table 2: Mobility and variables year 2015; Table 3: Mobility and variables for 2016*) is possible online through the link: <https://drive.google.com/drive/folders/14L5J5FIMX9hvgg5DNiRKFOa9X1-yFvNh?usp=sharing> The choice was made to facilitate the analysis, the tables occupy more than one page. the tables are present in the appendix.

Planning and health systems and Lea

Healthcare funding policy is an integral part of efforts to move to UHC (universal health coverage), but to align health financing policy with UHC prosecution, health care reforms need to be explicitly targeted to improve coverage and the intermediate objectives related to it, that is, efficiency, fairness in the distribution of health resources and transparency and accountability. The unit of analysis by objectives and the objective itself must be the population and the health system as a whole. What

matters is not the way in which a particular funding scheme affects its individual members, but rather how it influences progress towards UHC at the population level. The systematic approach goes through the System expressed in Figure 1 (World Health Organization, 2010), where the objectives expressed influence the planning, programming and control starting from the consideration of need, efficiency, quality, transparency and accountability. All the elements expressed in the graph are considered in the management and preparation of the funding and in the control of production business flows. The key performance indicators represent the achievement of results in healthcare companies and are configurable as the capacity and the level of answer to a need.

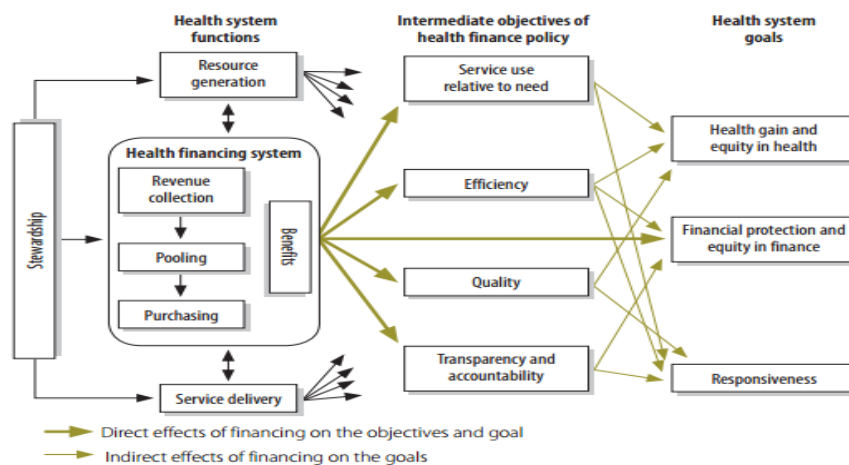


Figure-1. Health system goals and health financing policy objectives (Kutzin, 2008)

In Italy, the complex system of financing health services depends partly on the funding provided by the National Health Fund and partly on regional own revenues. Funding based on per capita share, based on inhabitants, must ensure a balance between available resources and the provision of adequate health services through the essential levels of assistance (LEA) (Costa, 2010). The Regions, as they have done up to now, will be able to guarantee additional services and services compared to those included in the LEAs, using their own resources. LEAs are at the basis of current health planning in Italy and are grouped into three major levels: collective prevention and public health, district assistance and hospital assistance. The certification of fulfilments takes place through the documentation specifically required to the regions through a questionnaire and an analysis of the same integrated with information already available at the Ministry of Health. Certification is carried out by the members of the LEA Committee which also establish compliance and criteria for assessing the fulfilment or non-fulfilment of the regions. The preliminary work is conducted by the offices of the Ministry responsible for matters of compliance, examined and validated by the members of the LEA Committee. An interactive comparison with the regional representatives is foreseen. Specifically, the certification of the fulfilment of the "maintenance in the provision of LEAs" area occurs through the use of a defined set of indicators divided between the three large levels. The regions are placed in the

compliance class if the score obtained is ≥ 160 or between 140 - 160 and no critical indicator while it will be placed in the default class if the score obtained is <140 or between 140 - 160 with at least one critical indicator. In our analysis we will not give evidence of the criticality of each region, but we will use Lea as a representative indicator of objective quality of performance of each region in relation to other variables, evaluating the relationship and the trend. It is possible to evaluate for 2014 and 2015 only the Leas of the Italian regions with ordinary statute.

Inter-regional health mobility and its financial implications

Healthcare planning must take into account the effectiveness of the service and the implications produced on the LEA, in terms of governance and accountability, health mobility is a phenomenon that must be taken into account. Health migration is the movement of patients from the regional territories of residence to other areas considered more equipped from the diagnostic and therapeutic point of view, in order to obtain better assistance. The phenomenon of health mobility is present not only in Italy but also in other countries of the European community and the United States of America. The principle of free choice, by patients, of the place where receiving care to which they are entitled has transformed since 1992 the Italian Health System. The topic concerns both the management of the services in the Health Authorities and those involved in planning at the level of local authorities and, therefore, it needs to obtain adequate information on the level of needs to be met and on accessibility to local public services. Moreover, the transfers of the assisted people among the health services structures of the Regions imply the need to regulate the debit and credit positions with respect to the rates in force for each service. The National Healthcare Fund, which distributes on a share capital, defines through the Ministry of Health the services to be taken into consideration, the characteristics of the information flows (tracked records), the times and methods of data transmission, the system to check the charges transmitted, the procedures for contestation and those provided for the initiation of counter-deductions. The classification of the services is currently carried out by means of the International Classification of Diseases system, in order to standardize the Grouped CMS ICD-9-CM classification system. For the proposed analysis, the information obtained from the SDO database was used, i.e. the national database on hospital admissions, set up at the Ministry of Health and freely available online, which includes information on all admissions. registered in Italy since 1996. Both in table 1 and in table 2 and table 3 it is possible to deepen the analysis by studying the escape and attraction indexes of the individual regions. The proposed method is applicable internationally. The national average value can be assumed as a reference value to evaluate the trend. The synthetic mobility index (ISM) can be calculated as the ratio between the attraction index and the escape index. The ISM always assumes values greater than or equal to zero. It is zero when the attraction is null, that is when in the considered catchment area no non-resident admissions were made. Values between 0

and 1 indicate inter-regional immigration lower than emigration. Values greater than 1 are when the incoming flows exceed the output flows. On an exemplary level, for numerical significance the values that represent the mobility for the acute in the ordinary regime were observed. The synthetic mobility index will be one of the variables used to evaluate the choice of the citizen and the relationship with other regional, economic and qualitative variables of respect for the essential assistance levels.

STATISTICAL ANALYSIS RESULTS

For both the year 2014 and 2015 the combined health index and the relative perception of health in each region increases as the per capita GDP increases, the dependency variable is the health compound index (2014 standard error = 1,332, p value <0.001 and $R^2 = 0.7735$, year 2015 standard error = 1.709, p value <0.001, $R^2 = 0.6626$). For both 2014 and 2015 the synthetic mobility index decreases with the difficulty of access to services, the dependent variable is the synthetic mobility index (2014 standard error = 0.456, p value = 0.011 and $R^2 = 0.307$; 2015 standard error = 0.0500, p value = 0.014, $R^2 = 0.2903$). In 2014 and 2015 the compound health index, and the relative health perception increases with the rise in the number of LEA reached in each region, the health compound index is the dependent variable (year 2014 standard error = 0.051, p value <0.001 and $R^2 = 0.714$; 2015 standard error = 0.0366, p value <0.001, $R^2 = 0.778$). For both 2014 and 2015 there is a positive correlation between the synthetic mobility index and the perception of health, the synthetic mobility index is the dependent variable (2014 standard error = 0.014, p value = 0.001 and $R^2 = 0.439$, 2015 standard error = 0.014, p value = 0.005, $R^2 = 0.358$). For both 2014 and 2015, the LEAs achieved in each region increase as the per capita GDP increases, the Lea are the dependent variable (2014 standard error = 6.142, p value = 0.001 and $R^2 = 0.558$; 2015 standard error = 6.609, p value <0.001, $R^2 = 0.664$). For both 2014, 2015 and 2016, there is no correlation between mobility and the overall perception of each region using the different composite indicators available as independent variables with respect to the dependent variable mobility ($p > 0.05$). There is no correlation between mortality indicator and health perception, just as there is no correlation between perceived quality, quality perception and achievement of LEA.

DISCUSSION

The Italian state as well as other countries has been engaged for a long time in the definition of a series of social indicators aimed at measuring the perception and satisfaction of the needs of citizens. The post-industrial 21st-century perspective focuses on the assessment of well-being aimed at answering to needs, rather than focusing on level and production growth. From 1960 to today several studies have been done on the subject. In particular, we start from the analysis of Land (2012), Glatzer et al.

(2015) by Hagerty and Land (2001), Volger (1999) and Cramm et al. (2012) and finally by Andrews et al. (2015). In Italy the introduction of BES project: the fair and sustainable well-being that has taken place since 2014 by ISTAT CNEL and ISTAT guarantees some reference indicators at national level. The indicators provided in Bes report aim to make the country more aware of its strengths and difficulties to overcome in order to improve the quality of life of its citizens, placing this concept at the base of public policies and individual choices (Biancone et al., 2017). In Italy the Ministry of Health has defined an Essential Assistance Level (LEA) that represents the provisions and services that the National Health Service (NHS) is required to provide to all citizens, free of charge or upon payment of a participation fee (ticket), with public resources collected through general taxation (taxes) and which can represent the capacity of each region to answer to the needs of the resident population (Brescia et al., 2017). Planning and programming the expenditure and the volume of services to be provided is not easy in a system where the economic crisis reduces the available resources. The obtained results show that various information could direct and influence the choices of the stakeholders, affecting the governance choices of the healthcare companies. The corporate social responsibility and accountability provide as a priority element the involvement of stakeholders and in particular in the public community and citizens (Jones et al., 2007; Mohammed, 2013). The economic evaluation has not yet been completely overcome as this could still influence the other variables at stake. The social indicators associated with objective indicators of achievement of minimum performance and GDP trends are all elements to be taken into consideration. The population from the first statistical analyses could be affected by the per capita GDP available in the perception of overall health, but it seems to be aware of the real performance of the number of essential services provided (LEA) during health mobility choices for acute performance in ordinary regime. Just as in the attractiveness given by each region in tourism companies, even in healthcare mobility, GDP influences the choice with a direct impact on perception and relapse (Alonso-Almeida et al., 2016), but it is always necessary to consider several indirect variables, identifying the most appropriate analysis mediators. The degree of satisfaction as in private companies is also important in public companies but should not be used alone to read the results, but must always be associated with objective indicators. The monitoring of access to public services and the collection of information is necessary in real time to obtain results that are always up to date and ready to direct choices. It has been shown that the exchange of information also on the quality of services helps both to change perceptions and to increase the reading capacity of stakeholders and politicians (Glatzer, 2015; Kundu & Datta, 2015; AL Athmay et al., 2016). Furthermore, it seems to be able to direct the choice of active mobility on the basis of the ease of access to public administration services without taking into account the trend and the general perception given by the regional indicators of the different regions. The use of information and

communication technologies in the healthcare sector offers great potential, but many data and indicators have not yet been fully used and put into the system (Aggelidis & Chatzoglou, 2008). The aging of the global population and the reduction of available resources requires public health to better orientate intervention choices and resources according to the needs of each region to increase the sustainable use of resources (Adderley & Mellor, 2014).

CONCLUSIONS

A planning and control system based on social welfare indicators, associated with the economic performance represented by per capita GDP and the level of essential services provided could be useful indicators to guide the governance of the health system and at the same time, which information is useful to meet the needs of NPM represented by a growing need for transparency and accountability of the population and other stakeholders. The challenge of the new millennium is the identification of non-financial indicators useful to support the classic financial indicators that are not always representative of the real welfare of the population, and not always easy to understand for everyone. The diffusion of all indicators that are easy to understand could allow greater perception by orienting choices and reducing the information asymmetry that is often present between the consumer and the public company.

STRENGTHS AND LIMITATIONS OF THE CURRENT STUDY

The study is innovative and no similar studies have been conducted. The use of non-financial information is suggested by the European community to better involve all stakeholders, Directive 2014/95 / EU (EU, 2014). The possible limitation of the proposed model is given by the obsolescence of data at the time of use by politicians and legislators. The study is conducted on Italian indicators, it is important the reproduction and analysis in other countries in which financial, non-financial and social indicators have already been developed.

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APPENDIX

Table 1: Mobility and variables for 2014

	Abruzzo	Lazio	Marche	Umbria	Tuscany	Emilia-Romagna	Liguria	Venezia	Veneto	Alto	Lombardy	Valle d'Aosta	Piedmont	Regions
102	101.2	102.2	102.2	105.5	109.3	109.7	110.4	109.2	106.8	113.3	110.7	106.7	104.8	BES health compound index
112.4	110.9	111.1	111.1	118.4	111.1	108.2	113.7	119.1	108.7	125.2	108.7	108.4	109	Composite education and training
89.7	90.6	97.9	97.9	97.8	98.8	103.3	98.6	103.5	105.6	106.3	104.6	105.1	98.4	Composite of work quality and job satisfaction
95.4	95.9	104.7	104.7	100.9	108.8	111.2	105.7	111.4	108.6	113.6	111.4	113.8	108.1	Composite income and inequality
93	99.4	90.4	90.4	98.6	101.8	103.9	96.6	106.4	107.2	107.3	102.1	99.5	106.2	Composite unease
94.4	99.7	97.8	97.8	99.9	106.2	110.2	100.8	108.4	106.2	120.9	105.3	104.8	105.7	Composite social relations
3.4	3.6	3.5	3.5	3.6	4.3	4.2	4.1	4.5	3.8	4.9	3.9	4	3.8	Trust in institutions
111.4	97.6	99.4	99.4	57.3	105.6	116.9	104.8	91.4	115	117.3	104	117.3	105.2	Composite security
89.3	88.7	89.6	89.6	92.7	87.9	95.6	94.5	99.1	95.1	109.9	97.5	104.1	95.2	Satisfaction for own standardized life
91	94	100.9	100.9	103.9	102.7	101.8	95.5	104	91.9	119	102.7	97.4	100.6	Composite landscape and cultural heritage
113.9	100.8	98.1	98.1	102.9	101.5	102.6	103.8	105.9	106.9	112.7	103.9	116.5	105.5	Composite environment
15.1	18.6	13	13	19.1	22.8	21.5	16.1	23.4	27.7	19.5	22.4	10.1	20.7	Service product innovation rate on the production system
6.1	7.1	6.1	6.1	4.7	5.2	6.2	6.1	5.2	5.6	4.4	3.2	4	4.5	Difficulty of access to some services
31034	181778	39862	39862	20656	108678	146787	47550	35462	149888	39460	353955	4394	125643	GDP 2014
1332757	5881438	1551967	1551967	895752	3751583	4448431	1587601	1228243	4927207	1053943	9988006	128445	4430633	Number of residents
2.33	3.09	2.57	2.57	2.31	2.9	3.3	3	2.89	3.04	3.74	3.54	3.42	2.84	Per capita GDP
9.68	7.86	9.03	9.03	10.12	8.42	7.79	8.71	9.69	7.77	7.13	6.97	8.56	8.69	% of health expenditure compared to GDP
14407	45489	18366	18366	17782	47658	75671	15822	11509	33748	4322	103279	1727	26061	Active mobility ordinary
10.2	7.8	11	11	15.3	11.6	13.9	9.6	8.5	7.3	8.7	9.3	11.1	5.9	acutes (index of attraction) % active mobility ordinary
24115	49528	20140	20140	11545	22378	28261	24567	7135	28396	7331	39957	2643	30785	acutes (index of attraction) passive mobility (ordinary regime acutes)
15.9	8.5	12	12	10.5	5.8	5.7	14.1	5.5	6.2	13.9	3.8	16	6.9	% passive mobility (ordinary regime)
-9708	-4039	-1774	-1774	6237	25280	47410	-8745	4374	5352	-3009	63322	-916	-4724	hospitalization (active)
0.64	0.92	0.92	0.92	1.46	2	2.44	0.68	1.55	1.18	0.63	2.45	0.69	0.86	(attraction index / escape
163	168	192	192	190	217	204	194		189		193		200	LEA
105.89	93.16	107.5	107.5	109.17	110.04	106.94	129.85	110.08	92.6	83.33	90.94	100.12	110.88	Mortality rate

Sardinia	Sicily	Calabria	Basilicata	Puglia	Campania	Molise
93.5	92.8	85.7	92.5	93.9	86.6	102.2
97.4	87	101	97.5	95.2	92.3	103.5
83.7	72	68.9	84.6	82.2	79.9	90.4
91	71.7	82.6	89	88.4	77.3	93.1
84	72.3	78.5	90.9	81	74.4	99.2
102.2	83.8	87.5	88.2	83.7	80.5	92.5
3.4	3.2	2.9	3.1	3.3	3.6	3.3
88.6	97.4	85.1	93.2	98.4	94.6	104.6
89.3	78.5	86.8	79.1	82.6	69.6	88.5
100.3	84	75.2	91.9	92.8	79.9	81.9
108.1	92.4	98.7	103.5	103.5	105.4	100.7
13.6	13.5	11.9	18	17.8	13.4	10.8
6.4	11.3	12.3	11.2	12.3	10	4.7
32101	84444	31866	10818	68760	100030	5821
1663573	5093509	1978582	577505	4090186	5865747	314037
1.93	1.66	1.61	1.87	1.68	1.71	1.85
12.99	12.77	13.62	12.63	13.27	12.04	13.98
3105	9463	4016	10774	20959	15979	11024
1.7	2	2.5	18.8	4.4	2.7	27.7
9701	32111	39264	13561	39615	52628	8911
5.1	6.5	20.1	22.5	8.1	8.3	23.6
-6596	-22648	-35248	-2787	-18656	-36649	2113
0.33	0.31	0.12	0.84	0.54	0.33	1.17
	170	137	177	162	139	159
92.13	97.09	96.78	102.39	89.32	87.64	111.74

Table 2: Mobility and variables year 2015

Liguria	Venezia	Veneto	-Alto	Lombard	Valle	Piedmont	Regions
110.1	111	109.7	121.3	111.7	100.9	106.7	BES health compound index
112.5	121.4	111.7	125.9	109.1	108.9	110.5	Composite education and training
98.2	105.4	107.9	108.3	103.7	104.7	99	Composite of work quality and job satisfaction
98.2	106.9	105.4	104.3	103.7	102.6	103.6	Composite income and inequality
102.1	108.2	108.8	122	104.5	108.8	101.1	Composite unease
102.1	108.2	108.8	122	104.5	108.8	101.1	Composite social relations
7.3	7.5	7.2	7.6	7.3	7.4	7.3	Trust in other types of institutions
12	4.2	6.8	8.9	12.9	6.5	12.4	Presence of deterioration elements in the living area
39.2	45.4	44.6	46.8	39.2	45.8	44.6	Satisfaction for own standardized life
							Composite landscape and cultural heritage
							Composite environment
24	18.3	27.7	21.2	23.8	18.7	23.3	innovation rate on the
5.7	5.3	5.3	4.3	3.6	6	4.9	Difficulty of access to some services
48008	35681	151791	39987	359047	4384	127443	GDP 2015
1577158	1224170	4921360	1057524	10005482	127814	4414357	Number of residents
3.04	2.91	3.08	3.78	3.59	3.43	2.89	Per capita GDP
15743	10838	36526	4627	109935	1702	26087	Active mobility ordinary
9.7	8.5	7.7	9.2	10	11.3	5.9	acutes (index of attraction) % active mobility ordinary
24375	8169	28246	7544	40664	2609	31297	acutes (index of attraction) passive mobility (ordinary regime.acutes)
14.3	6.5	6.1	14.2	3.9	16.3	7	% passive mobility (ordinary regime)
-8632	2669	8280	-2917	69271	-907	-5210	hospitalization (active mobility)
0.68	1.31	1.26	0.65	2.56	0.69	0.84	(attraction index / escape
194		202		196		205	LEA
141.21	119.46	100.15	87.85	98.16	116.81	121.08	Mortality rate

	Sardinia	Sicily	Calabria	Basilica	Puglia	Campani	Molise	Abruzzo	Lazio	Marche	Umbria	Tuscany	Romagn
97	93.2	86.3	98.1	97.5	86.8	103.3	103.6	104.1	100.1	100.1	109.1	111.3	108
96.8	87.4	104.3	102.6	94.1	92.9	106.5	110.5	105.6	116.1	116.1	119.8	113.5	109.9
83.3	69.7	70.4	92	82.3	79.7	89.7	90.6	88.9	98.9	98.9	97.4	99.9	100.7
88.3	70.3	78.5	94.8	81.4	80.7	99.7	82.4	100.8	95.7	95.7	93.6	103.6	105.3
96.3	84	79.3	89.6	84.3	78.5	89.2	94.5	95.5	99.3	99.3	100.7	104.2	102.7
96.3	84	79.3	89.6	84.3	78.5	89.2	94.5	95.5	99.3	99.3	100.7	104.2	102.7
7.3	7.3	7.1	7	6.9	7.2	7	6.9	7.1	7.3	7.3	7.2	7.1	7.2
9.5	9.8	14	5	7.6	13	7.1	12.9	24.6	6	6	10.1	14.5	11.1
39.8	35.3	38.5	34.5	38.1	28.1	37.9	43.9	37.5	43.2	43.2	41.2	43.5	44.6
12.8	10	14.2	12.3	14.3	11.9	13.1	12.3	16.7	17	17	15.4	20.4	23
5.4	10.4	12.1	10.6	12.5	10.8	6.5	7	7.3	6.3	6.3	5.3	5.6	6.6
32061	86759	32502	11201	70099	100653	5907	32109	182406	40185	40185	21196	110380	149313
1660712	5083171	1973576	575157	4083636	5856190	312688	1329044	5890449	1547274	1547274	892972	3748526	4449327
1.93	1.71	1.65	1.95	1.72	1.72	1.89	2.42	3.1	2.6	2.6	2.37	2.94	3.36
3171	8614	3929	10677	21136	16478	10818	14907	43735	17409	17409	17248	48182	76304
1.8	1.9	2.5	18.8	4.6	2.9	28	10.7	7.7	10.8	10.8	15.3	11.9	14.1
10036	32731	39477	13730	39801	52593	8837	23520	51109	21269	21269	11687	22861	28868
5.4	6.7	20.6	22.9	8.4	8.6	24.1	15.9	8.9	12.9	12.9	10.9	6	5.9
-6865	-24117	-35548	-3053	-18665	-36115	1981	-8613	-7374	-3860	-3860	5561	25321	47436
0.33	0.28	0.12	0.82	0.55	0.34	1.16	0.67	0.87	0.84	0.84	1.4	1.98	2.39
	153	147	170	155	106	156	182	176	190	190	189	212	205
99.23	104.06	102.71	110.96	96.74	95.84	122.71	113.8	99.35	117.01	117.01	118.54	120.24	114.46

Table 3: Mobility and variables for 2016

Valle d'Aosta	Piedmont	Regions
		BES health compound index
32.7	31.7	Cultural participation
7.7	7.5	quality and job
4.6	4.8	Composite income and inequality
		Composite unease
		Composite social relations
7.4	7.3	Trust in other types of institutions
6.6	12	deterioration elements
45.8	44.6	Satisfaction for own standardized life
		Composite landscape and cultural heritage
		Composite environment
		innovation rate on the
7.3	5.4	Difficulty of access to some services
		GDP 2016
127106	4398386	Number of residents
		Per capita GDP
1638	26821	ordinario (indice di
11.6	6.2	ordinario (indice di
2182	30871	mobilità passiva (acuti regime ordinario)
14.8	7.1	% mobilità passiva (regime ordinario)
-544	-4050	ricoveri (mobilità attiva
0.78	0.87	mobilità (indice di attrazione/indice di

Sardinia	Sicily	Calabria	Basilicata	Puglia	Campania	Molise	Abruzzo	Lazio	Marche	Umbria	Tuscany	Romagna	Liguria	Venezia	Veneto	-Alto	Lombardy
28.9	20.5	15.4	23.4	19.5	19.7	22.9	23	33.7	29	29.9	30.9	34.1	30.6	38.4	31.9	40.6	34.1
7.4	7	7.2	7.2	7.2	7.1	7.4	7.2	7.2	7.3	7.4	7.4	7.4	7.3	7.5	7.5	7.8	7.4
6.4	9.2	8.2	5	5.8	8.4	5.7	4.8	6.6	5.2	5	4.7	4.6	5.3	4.1	4.3	4.6	5.5
7.3	7.1	7	6.9	7.2	7	6.9	7.1	7.3	7.2	7.1	7.2	7.4	7.3	7.5	7.2	7.6	7.3
9.6	9.8	13.8	4.7	7.5	12.9	7	12.7	24.5	5.9	10.1	14.5	10.9	11.7	4.2	6.9	8.8	12.6
39.8	35.3	38.5	34.5	38.1	28.1	37.9	43.9	37.5	43.2	41.2	43.5	44.6	39.2	45.4	44.6	59.8	46.8
6	10.4	12.2	9.7	11.5	12.1	6.5	6.3	7.9	6.2	6.2	6.1	7.7	5.5	5	6.1	3.5	4.1
1655637	5065451	1967825	572030	4070527	5844967	311238	1324380	5893298	1540904	890045	3743418	4448494	1568180	1219545	4911326	1060987	10013758
3178	7971	3739	10253	21975	15956	9986	15033	44091	17064	16012	47368	76018	15926	11735	38783	4781	115108
1.8	1.8	2.5	18.6	5	2.8	27.8	10.8	8	10.8	15.1	12	14.3	10.1	8.8	8	9.7	10.6
9858	33565	39212	13865	39837	53017	9407	23574	52004	21867	11824	22751	29035	25426	8484	29139	7858	40586
5.5	7.1	21.3	23.6	8.7	8.9	26.6	16	9.3	13.4	11.6	6.1	6	15.3	6.5	6.1	15	4
-6680	-25594	-35473	-3612	-17862	-37061	579	-8541	-7913	-4803	4188	24617	46983	-9500	3251	9644	-3077	74522
0.33	0.25	0.12	0.79	0.57	0.31	1.05	0.68	0.86	0.81	1.3	1.97	2.38	0.66	1.35	1.31	0.65	2.65

GREEN MARKETING COMMUNICATIONS IN THE FUNCTION OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

Modern marketing is oriented on a sustainable development, which is a framework for designing policies and strategies for continued economic and social progress, without harming the environment and natural resources essential to human activities in the future. The green consumer is the focus of all marketing activities that are also shaped to support the overall green business. But the emphasis is on green communication through the sales packaging of products. Green communication is best achieved through ecological symbols on packaging.

This paper is part of a systematic research of consumer relationships towards ecological packaging, ecological symbols and recycling routines. The obtained results point to positive ecological attitudes and actions that contribute to the sustainable development.

Keywords: marketing communication, green packaging, sustainable development, ecological symbols

INTRODUCTION

Marketing begins and ends with a customer. Marketing as an activity monitors consumer needs and desires and, in parallel, follows trends related to the entire market. At the beginning of the 1970s, people began to play an important role in environmental protection and green marketing emerged. With increased consumer awareness of the environment, businesses have had to turn around and make their products ecologically acceptable. But it is not just a product that has changed since the beginning of this eco-conscious era, but all its components as well. The main component has always been the price that is economically compromising for eco-friendly products and is often higher than the price for the classic product. Then the way of advertising and promotion of products and communication between companies and consumers changes. The packaging itself is of great importance. The packaging has more functions, such as protective, sales promotion, economic, distribution and usability, and some changes have also occurred in this reversal. In addition to the new types of materials used, packaging is being reduced to the right dimensions to keep the product safe and yet minimal. Therefore the package is an important link in the communication chain as it transmits visual messages and affects both the

decision to purchase, and post-purchasing behavior of consumers. Storage and recycling of packaging has also become the everyday life of most consumers and is characterized by various symbols and signs of each packaging and facilitates further use or disposal. Today, environmental concerns are part of a culture that in many ways encourages society to move to live in a way that a cleaner and healthier environment will be maintained. According to Grant (2007) main potential role of the “new marketing” is to make more consumers willing and able to go green. This can be established through education and extension of the green culture beyond middle class.

In this paper, we will try to find out the impact of green marketing on recycling habits of consumers through analysis of theory and experimental research. For the purpose of experimental research, a survey questionnaire will be used, from which the data collected will see consumer attitudes and their relation to green packaging and marketing. It will also be seen from the research how many consumers are paying attention to ecological symbols and packaging recycling. Collected data will be statistically processed and interpreted in order to make a conclusion on how much green marketing and packaging really affect consumers and their recycling habits today.

THEORETICAL FRAMEWORK

In the concept of corporate socially responsibility it is necessary that economic entity takes into accounts its economic, social and environmental impact. Achieving competitive advantages and greater productivity contributes to investing in technologies that do not pollute the environment (water, land, air); investing in employee training, better working conditions (health and safety) and building good relationships with employees (Dangelico & Vocalelli, 2017). In addition to this, internal dimensions, socially responsible business has its own external dimension, i.e. positive influence on the local community and other participants (suppliers, business partners, financiers, shareholders, consumers, public administration, associations) (Tolušić, Dumančić & Bogdan, 2014). Consequently, conventional marketing has also been transformed and adapted to new values at the same time satisfying the new needs and desires of consumers and achieving sustainable development (Papadas, Avlonitis & Carrigan, 2017).

There are three broad types of green marketing objectives: green with setting a new standards in responsible products, policies and processes; greener which includes sharing responsibility with customers; greenest which means supporting innovation – new habits, services, business models (Grant, 2007).

With the development of green marketing, the term green consumer appeared. A green consumer can be identified as a consumer who, in meeting their needs and desires, seeks a product that has minimal

negative impact on the human environment (Tolušić, Mikolčević & Tolušić, 2011). These are educated consumers and the target market is very interesting, although a much larger market consists of other consumers who are passive to the preservation of the human environment (Kotler & Keller, 2008). Green marketing tools such as eco-label, eco-brand and environmental advertisement will make easier perception and awareness of green product attributes and characteristics, consequently, guiding them into purchasing environmentally-friendly products. So Rahbar and Wahid (2011) has tried to explore the relationship between consumer's actual purchase behavior and green marketing tools. They concluded that the relationship between trust in eco-label, eco-brand and purchase behavior are significant.

Such consumers are much more concerned about environmental issues when purchasing and using products. They are often very active in their communities, accepting and supporting ecological actions and goals, and they are also willing to allocate more resources for organic products. Therefore, they expect complete information about the product or its packaging, because they are motivated by the desire to protect themselves, members of their families and their neighbors and to secure the future. Green consumer research has resulted in segmentation green and other ecologically aware consumers, according to their interest in an environment protection (Nefat, 2015). Also, consumers believe that purchasing green products or products from green companies may be a way they can help the environmental problems society faces today (Borin, Lindsey-Mullkin & Krishan, 2013).

Evolution in the ecologically conscious consumer behavior (ECCB) also has been investigated by Tilikidou (2013). She emphasized that ECCB is assumed to consist of four distinct, though inter-related, types, namely pro-environmental purchasing behavior, recycling behavior, pro-environmental post-purchasing behavior, and pro-environmental (non-purchasing) activities.

Within the green marketing complete 4P concept can also be based on sustainable development. Except a green product and the green packaging there are green price and a green communications (Ham, 2009). Beside green 4P, green marketing also uses the accepted 3R formula (reduce - reuse - recycle), and in that way through three steps significantly helps to protect the environment and sustainable development (Bačun, 2009; Gittel, Magnusson & Merenda, 2012).

Pressure on companies to "go green" is constantly increasing. It is coming from the market as well as from the governments (Iannuzzi, 2018). There is virtually no global brand that is not environmentally and sustainability conscious. Examples of best practice include Tesla, IKEA, Lego, Timberland, P&G, Tesco and many other. Jacquelyn Ottman, founder of J. Ottman Consulting, developed a list of twenty rules that the company should keep in mind while developing its strategy in the direction of green marketing. These rules make it easier for companies to develop brave, creative and practical

strategies that emphasize the inherent value of products for a successful integration of sustainability (Ottman, 2010).

Kumar and Ghodeswar (2014) found that the respondents possess willingness to support environmental protection, realization of environmental responsibilities, and inclination towards searching green product-related information and learning about green products. Supporting environmental protection, drive for environmental responsibilities, green product experience, environmental friendliness of companies and social appeal are identified as important factors affecting green product purchase decisions. Latif and Omar (2012) in their study find out that is a significant relationship between recycling behavior and collectivism. Also, environmental concern is important towards attitude, and attitude helps to enhance the environmental concern to improve recycling behavior (Jekria & Daud, 2016).

Ertz et al (2016) in their study had identified which variables (such as having more or less time, money, and power available) may be of more interest to modulate, so as to increase pro-environmental behavior. Furthermore, Martin Gonçalves et al (2016) in their study has examined whether consumption values predict green buying behavior. They based the examination on the theory of consumption values and results show that the functional value is almost always necessary but is not sufficient by itself for predicting green buying.

This kind of investigation is a very important because the green consumption among individuals can be an effective way to minimize the negative impact of consumption on the environment (Yadav & Pahtak, 2017).

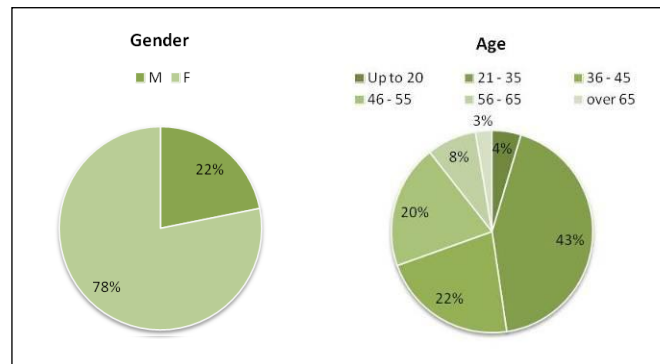
Given the growing importance of ecological business and behavior, there was a need for scientific research to determine how much consumers are green oriented. Do they understand green concept through the green communication, green packaging and green waste management.

METHODOLOGY OF RESEARCH

The collection of empirical data for this paper was performed during August, 2017. The research was quantitative in its nature. The questionnaire as instrument was obtained by exploratory factor analysis and it consists of 15 questions related to the research topic i.e. green marketing, green consumer, recycling routine, green package and ecological symbols. Reliability of this test based on collected data, Cronbach alpha=0,943, is satisfactory for the purpose of the study. Additional independent variables describing the respondents' characteristics (gender, age, level of education, employment status, and total monthly household income) were added to the survey. A total of 151 completed questionnaires were collected during the study.

Figure 1 shows independent characteristics of respondents. Survey respondents were 78% female and 22% male. Respondents were coming from age groups up to 20 (4%), 21-35 (43%) 36-45 (22%), 46-55 (20%), 56-65 year (8%) while 3% of respondents were older than 65 year.

Figure 1. *Independent characteristics gender and age of respondents*



A total of 56% of respondents achieved at most high-school diploma education, 44% completed undergraduate studies, Bachelor of Science diploma, Master of Science or doctoral diploma. Also a total of 58% of respondents are employed, 30% student, 7% unemployed, and 5% retired as shown in Figure 2.

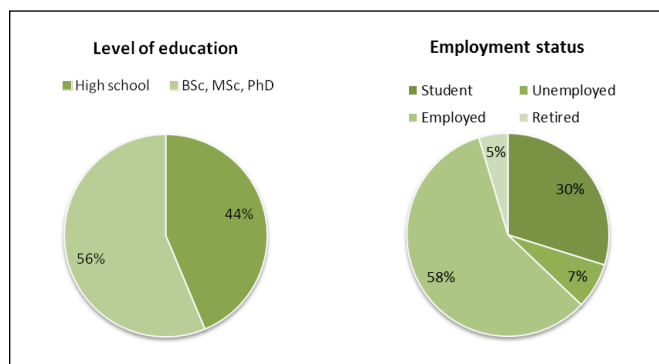
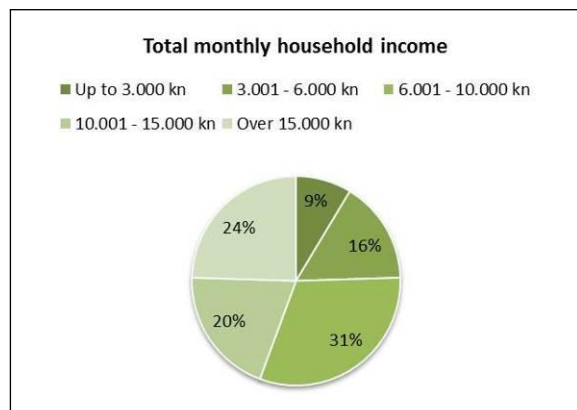


Figure 2. *Independent characteristics level of education and employment status of respondents*

Also a totally monthly household income of respondents was investigated. Figure 3 shows the distribution of income by category.

Figure 3. *Independent characteristics total monthly household income of respondents*

DISCUSSION AND RESULTS

The research was based on two hypotheses:

H1: understanding of the concept of green marketing positively affects the recycling routine of the respondents

H2: being a green consumer positively affects the recycling routine of the respondents

As shown in the Figure 4, majority of survey respondents (39% or 59 respondents) understands the concept of green marketing, 27% or 40 respondents doesn't know what is green marketing, and 34% or 52 respondents are not sure about it.

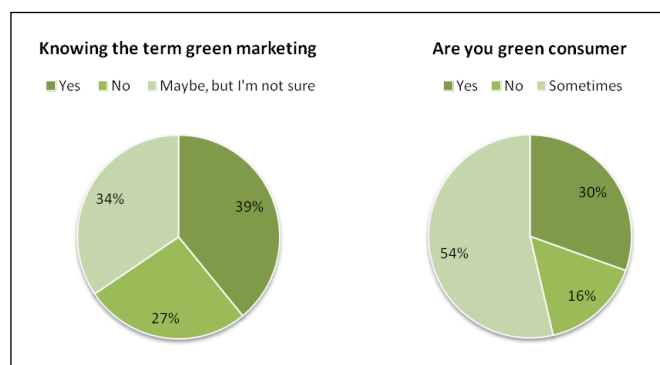


Figure 4. *Independent characteristics "understanding of the concept of green marketing" and "being a green consumer"*

Furthermore, 46 of survey respondents (or 30%) describe themselves as a green consumers, 24 respondents (or 16%) think they are not green consumers, and majority of respondents (54% or 81 respondents) sometimes behave like a green consumer (Figure 3).

The main research question pertained to the recycling routine i.e. frequency of recycling. Figure 5 shows that 52% of respondents (or 79 respondents of survey) recycle packaging, 38% (or 57 respondents) do this sometimes, and only 10% (or 24 respondents) never recycle.

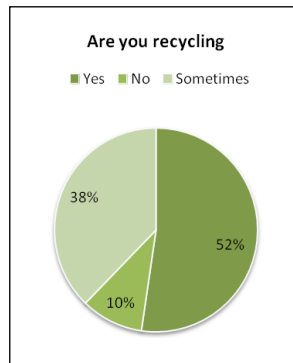


Figure 5. *Dependent characteristics recycling routine*

Descriptive statistics of frequency of recycling routine related to familiarity of the green marketing concept and being a green consumer.

In the first step, descriptive statistics of measured values was made. It was used to determine normality of data and their convenience for further statistical analysis and interpretation.

Table 1. *Number of valid cases*

Between-Subjects Factors		
		N
Green marketing	Yes	59
	No	40
	Maybe	52
Green consumer	Yes	46
	No	24
	Sometimes	81

Table 1 shows number of valid cases of frequency of recycling routine related to knowing the term green marketing and being a green consumer (answers *yes*, *no*, *maybe* or answers *yes*, *no*, *sometimes*).

Table 2. *Descriptive statistics of recycling routine frequency related to familiarity of green marketing concept and being a green consumer*

Descriptive Statistics				
Dependent Variable: Recycling				
		Mean	Std. Deviation	N
Green marketing	Yes	3,1100	,07466	59
	No	2,9760	,32770	40
	Maybe	5,7730	,15377	52
	Total	4,8383	,97431	151
Green consumer	Yes	2,9997	,08011	46
	No	3,4640	,14924	24
	Sometimes	4,3100	,09371	81
	Total	3,5574	,96974	151

Table 2 shows a descriptive statistics of recycling routine frequency related to familiarity of the green marketing concept and being a green consumer (answers *yes, no, maybe* or answers *yes, no, sometimes*).

Standard deviation or absolute measure of dispersion shows that there are low percent deviations in frequency in answers of recycling routine, in comparison to average frequency in answers for both independent variables, knowing the term green marketing and being a green consumer. It shows that the variability is low.

It was concluded from the results that the measured values are appropriate for the further statistical interpretation and analysis of variance. One Way ANOVA test was used.

Univariate Analysis of Variance

Before testing the difference of effects among familiarity with the green marketing and being a green consumer on the recycling routine, Levene's Test of Equality of Error Variances of familiarity with the green marketing and being a green consumer was conducted. This test was used to assess the equality of variances for a variable calculated for two groups, familiarity with the green marketing and being a green consumer. It tests the null hypothesis that the population variances are equal regarding the result of *p*-value, which is less than significance level of .05 as Table 3 shows. It can be concluded that the average values of the tested groups are not equal.

Table 3. *Levene's Test of Equality of Error Variances of familiarity with the green marketing and being a green consumer*

Levene's Test of Equality of Error Variances^a
Dependent Variable: Recycling

F	df1	df2	Sig.
11,003	5	141	,000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Green marketing + Green consumer + Green marketing * Green consumer

Below are the results of tests of Between-Subjects Effects of familiarity with the green marketing and being a green consumer (Table 4). Observing the level of statistical significance of *p*-value (less than 0.05), it can be concluded that the independent variables of familiarity with the green marketing and being a green consumer are significant. They positively influence the change of a recycling routine of the respondents. It is interesting to point out that the difference in frequency of a recycling routine is around 76,9% in those who know what green marketing is and of those perceiving themselves as a green consumer.

These results fully support H1 and H2 hypotheses that understanding of the concept of green marketing and being a green consumer positively affects the recycling routine of the respondents.

Table 4. *Tests of Between-Subjects Effects of familiarity with the green marketing and being a green consumer*

Tests of Between-Subjects Effects

Dependent Variable: Recycling

Source	Type III Sum of Squares	DoF	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	131,450 ^a	5	25,115	779,293	,000	,988
Intercept	2887,110	1	2887,110	124698,332	,000	,999
Green marketing	28,201	1	28,201	1331,476	,000	,917
Green consumer	77,480	2	38,740	1362,881	,000	,967
Green marketing * Green consumer	9,294	2	4,647	139,992	,000	,769
Error	3,900	141	,029			
Total	2971,300	151				
Corrected Total	144,760	150				

a. R Squared = ,988 (Adjusted R Squared = ,987)

Estimated Marginal Means

Green marketing

In the next step, estimates of dependence of a recycling routine on a familiarity with the green marketing (Table 5) was calculated. Estimated marginal means (3,110 for the answer yes, 2,976 for the answer no, and 5,773 for the answer sometimes) are equal to the means from Table 2. There is no difference between means.

Table 5. *Estimates of dependence of dependent variable (recycling) on familiarity with the green marketing*

Estimates

Dependent Variable: Recycling

Green marketing	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Yes	3,110	,020	4,776	4,701
No	2,976	,020	3,692	3,883
Sometimes	5,773	,020	4,990	4,892

Observing the level of statistical significance of p -value (less than 0.05), it can be concluded that the independent variable of familiarity with the green marketing is significant, because the observed arithmetic means of frequency of recycling routine in relation to the independent variable are not the same (Table 6).

Table 6. *Pairwise Comparison of dependent variable (recycling) on familiarity with the green marketing*

Pairwise Comparisons

Dependent Variable: Recycling

(I) GM	(J) GM	Mean Difference (I-J)	Std. Error	Sigma	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
Yes	No/Sometimes	1,001*	,022	,000	,903	1,171
No/Sometimes	Yes	-1,001*	,022	,000	-1,143	-,927

Based on estimated marginal means

*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

F-test was conducted to determine the significance of independent variables, familiarity with the green marketing, and its influence on frequency of recycling routine (Table 7). Level of statistical significance of *p*-value (less than ,05) shows that the change in answer about knowledge about the term green marketing is significant, because the arithmetic means of observed groups are not the same.

Table 7. *Univariate tests of the effects of knowing the term green marketing to the recycling routine*

Univariate Tests

Dependent Variable: Recycling

	Sum of Squares	df	Mean Square	F	Sig.	Partial Squared	Eta
Contrast	31,292	1	35,306	1337,431	,000	,917	
Error	4,100	140	,020				

The *F* tests the effect of knowing the term green marketing. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

These results once again fully support H1 hypothesis that understanding of the concept of green marketing positively affects the recycling routine of the respondents.

Green consumer

The dependence of a recycling routine on a being a green consumer was also calculated (Table 8). Estimated marginal means (2,999 for the answer *yes*, 3,464 for the answer *no*, and 4,310 for the answer *sometimes*) are equal to the means from Table 2. There is no difference between means.

Table 8. *Estimates of dependence of dependent variable recycling on being a green consumer*

Estimates
Dependent Variable: Recycling

Answer	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Yes	2,999	,024	3,666	3,798
No	3,464	,024	4,192	4,643
Sometimes	4,310	,024	5,878	5,992

Level of statistical significance of p -value (less than 0.05) shows that the change of opinion about being a green consumer is significant, because the arithmetic means of observed groups are not the same.

Table 9. *Pairwise Comparison of dependent variable recycling on being of green consumer*

Pairwise Comparisons
Dependent Variable: Recycling

(I) GC	(J) GC	Mean Difference (I-J)	Std. Error	Sig.a	95% Confidence Interval for Differencea	
					Lower Bound	Upper Bound
Yes	No/Sometimes	-,690*	,036	,000	-,922	-,697
No/Sometimes	Yes	,690*	,036	,000	,712	,848

Based on estimated marginal means

*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

F -test was conducted to determine the significance of independent variable, being of green consumer, and its influence on frequency of recycling routine (Table 10). Level of statistical significance of p -value (less than 0.05) shows that the change of opinion of being a green consumer is significant, because the arithmetic means of observed groups are not the same.

Table 10. *Univariate tests of the effects of being a green consumer to the recycling routine*

Univariate Tests
Dependent Variable: Recycling

	Sum of Squares	df	Mean Square	F	Sig.	Partial Squared Eta
Contrast	76,431	2	39,974	1441,492	,000	,927
Error	3,800	144	,031			

The F tests the effect of Type. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

These results confirm such an assumption formulated as H2 that being a green consumer positively affects the recycling routine of the respondents.

Table 11. *Estimates of dependence of dependent variable recycling on familiarity with the green marketing and being a green consumer*

Green marketing * Green consumer

Dependent Variable: Recycling

Green marketing	Green consumer	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Yes	Yes	3,620	,030	3,692	3,837
	No	4,790	,030	3,981	4,103
	Sometimes	5,990	,030	6,544	6,681
No	Yes	3,220	,032	3,002	3,121
	No	3,840	,032	3,741	3,898
	Sometimes	4,920	,032	4,231	4,388
Maybe	Yes	3,590	,034	3,228	3,392
	No	3,770	,034	3,871	4,071
	Sometimes	5,380	,034	5,993	6,107

Values in Table 11 can confirm us the results of previous Pairwise Comparisons Tests familiarity with the green marketing concept and being a green consumer on the recycling routine is significant, when we observe the change frequency in answers about recycling routine of the respondents.

CONCLUSION

The research presented in this paper was intended to determine the influence of familiarity with the concept of green marketing and customers labeling themselves as green consumers and the influence on the consumers' recycling routines. Research was based on two hypotheses; that understanding the term of green marketing and describing itself as a green consumer positive affects the recycling routine of the respondents.

One Way ANOVA test was used in order to see whether there is a connection between consumer understanding of a green marketing concept and consumer green behavior. Results of tests of Between-Subjects Effects i.e. observing the level of statistical significance of p -value (less than 0.05), it can be concluded that the both independent variable (familiarity with the green marketing and being a green consumer) is significant, because the observed arithmetic means of frequency of recycling routine in relation to the independent variable are not the same.

Also F -test was conducted to determine the significance of independent variables (familiarity with the green marketing and being a green consumer), and their influence on frequency of recycling routine. Level of statistical significance of p -value (less than ,05) shows that the change in answers about

knowledge about the term green marketing and describing themselves as a green consumer is significant, because the arithmetic means of observed groups are not the same.

They positively influence the change of a recycling routine of the respondents. It is interesting to point out that the difference in frequency of a recycling routine is around 76,9% in those who know what green marketing is and of those perceiving themselves as a green consumer.

The obtained results show that both of the independent variables (green marketing and green consumer) are significant in the way that respondents who understand the green concept largely recycle packaging that contributes to the sustainable development. So both hypotheses prove to be true which is opening a space for finding out if there is connection between understanding ecological symbols on the packaging and recycling routine. Also, it is important to investigate consumer perception of ecological packaging in the way of attractiveness.

Results of this research and mentioned further research are important in a process of creating a green communication and green packaging for companies, and society as well as in hope of better promotion of the sustainable development.

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STATUS QUO OF THE ACCEPTANCE OF THE SHARING ECONOMY IN GERMANY

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ABSTRACT

Sharing Economy is a relatively new phenomenon that has developed over the last ten to fifteen years, facilitated by widely available internet access as well as an increased awareness of ecological factors combined with decreased purchasing power due to the last economic crisis. It is composed of a variety of different business models with different impacts on society.

The enclosed research paper gives an overview of the different forms of the sharing economy that have so far been classified and shows a picture of the acceptance of the sharing economy in Germany with a special emphasis on car sharing by pointing out behavioural aspects of consumers and producers as well as regulatory aspects. It points to those sectors that have strongly been impacted by the sharing economy. Germany is one of the most important manufacturing countries worldwide with a strong reliance on exports of the tools and machinery as well as the automotive sector. German customers are known for their demand of high quality products that are well manufactured. Additionally, with terrorism growing in typical former German holiday destinations (Northern Africa, Turkey, France) Germany is also witnessing an increase in domestic as well as foreign tourism. Here companies from the sharing economy threaten existing business models as i.e. car hires, hotels or restaurants. From a cultural perspective, Germans accept material status symbols, i.e. in the form of cars, watches or technical devices. Sharing threatens the German economic model due to the fact that sharing tries to use less of all resources and end-products.

Therefore, this exploratory work is based on a survey undertaken among younger Germans. The survey took place between November 2017 and January 2018.

Keywords: Sharing Economy, Germany, Car Sharing, Tourism, Collaborative Consumption

INTRODUCTION

Sharing in itself is no new phenomenon. For centuries people have shared among others household goods or food with their families, friends or neighbours (Sundararajan 2016, Codagnone und Martens 2016). What is new is the fact that people share their belongings with strangers rather than friends. The sharing economy, also called collaborative consumption (Belk 2014, Botsman 2014), peer- or access-economy (Juul 2015) is a new phenomenon that has attracted lots of interest since the years of the financial crisis.

The sharing economy has its roots on the one hand in the loss of purchasing power wiped away through the financial crisis (Belk 2014) and on the other hand in a growing awareness for societal and environmental problems (Belk 2007, Botsman und Rogers 2010).

As the sharing economy is coming to be established, positive and negative impacts have to be weighed against each other and regulatory concerns start to apply (Codagnone und Martens 2016, Marchi und Parekh 2015, Schor 2014). Within the European Union, different member states have started to regulate the sharing economy in different ways. Whereas Uber has been prohibited by law in Germany (N.N. 2015), it is permitted in other European countries. Airbnb has not been prohibited; however, some German cities have started to restrict the offer of secondary homes for rental to tourists and subsequently Airbnb has terminated the arrangements with several lessors in the German capital (Krex 2016).

The following exploratory paper will shed light on current trends and developments of this economic sector in Germany. The reminder of the paper is structured as follows: the next section starts out with a definition of sharing economy, followed by a chapter on what moves German people to participate in the sharing economy. In the subsequent section the methodology of the survey is explained and results are presented. The last part will draw a conclusion.

LITERATURE REVIEW

Sharing economy - definition

During the last years, several researchers have undertaken the task to define the sharing economy in order to outline the scope and analyze the impacts of this economic sector. One of the first authors has been Belk, 2007 who started out with distinguishing sharing from gift giving and defined sharing from a family viewpoint as pooling of resources in the family. Definitions have evolved since, encompassing the commercial aspects of the transaction (Lamberton und Rose 2012, Sundararajan 2016) as well as the connectivity aspect (Gansky 2010, Belk 2014 or pwc.com/CISSharing 2015). Other authors define sharing economy by relying on the environmental benefits accrued through sharing (van Houten 23.01.2014 or Schor 2014). An overview of the main terms used is listed in table 1.

Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε.

Author, Year	Name	Definition
Belk 2007	Sharing	"...the act and process of distributing what is ours to others for their use and /or the act and process of receiving or taking something from others for our use"
Belk 2010	Sharing	" ... we may instead judge whether something is sharing, gift giving, or commodity exchange based on its resemblance to the prototype of each."
Gansky 2010	Mesh	"the Mesh is based on network-enabled sharing—on access rather than ownership", "a type of network that allows any node to link in any direction with any other nodes in the system"
Lamberton , Rose 2012	Commercial Sharing System	"(...) marketer-managed systems that provide customers with the opportunity to enjoy product benefits without ownership."
van Houten 2014	Circular Economy	"... an economic system in which no materials are wasted."
Schor 2014	Connected consumption / Sharing Economy	"Sharing economy activities fall into four broad categories: recirculation of goods, increased utilization of durable assets, exchange of services, and sharing of productive assets."
Belk 2014	Sharing / Collaborative consumption / pseudo-sharing	"There are two commonalities in these sharing and collaborative consumption practices: 1) their use of temporary access non-ownership models of utilizing consumer goods and services and 2) their reliance on the Internet, (...)."
Botsman 2014	Collaborative Consumption	"I define the collaborative economy as a system that activates the untapped value of all kinds of assets through models and marketplaces that enable greater efficiency and access."
pwc.com/ CISSharin g 2015	Sharing Economy	"Sharing economies allow individuals and groups to make money from underused assets. In this way, physical assets are shared as services"
Sundararajan 2016	Crowd-based Capitalism / Sharing	Economic system with 5 characteristics: a) largely market-based, b) high-impact capital, c) crowd-based networks, d) blurred lines between personal and professional, e) blurred lines between different types of labor as well as labor and leisure

Source: Own elaboration

Codagnone, Martens (2016) critics that none of these definitions is connotative, i.e establishes criteria that classify one economic activity as belonging to the sharing economy or not. Instead, they are all ostensive, that is pointing to certain characteristics and complement them with examples. A true

consensus has so far not evolved. It exists however a consensus about certain platforms / activities that all authors classify as belonging to the sharing economy (car-sharing, ride-sharing, apartment-sharing, ...). Furthermore, an evolution takes place and more and more authors are adopting the term sharing economy in their works since it has evolved to be the dominant one. A good classification of the different types of platforms and business models that exist can be found by combining the approaches given by Codagnone, Martens, 2016 and Schor, 2014. Here, sharing economy models are differentiated according to their profitability (for profit vs. not for profit) and the direction of the sharing (peer to peer (P2P) or business to consumer (B2C), respectively to peer (B2P)). Figure 1 shows the different classification including some examples. Interesting from a economic perspective are the “commercial sharing” and “commercial B2C” that threaten existing business models, as for instance car rentals and hotels among others. Non-profit approaches only concern regulation if they include associations or publicly registered clubs.

		Platform concept	
		P2P	B2C / B2P
Performance Orientation	Not for profit	True Sharing (Food Swaps)	Makerspace/ FabLab
	For profit	Commercial Sharing (Airbnb)	Commercial B2C (Car2Go)

Figure 1 **Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε.**

Source: Own elaboration adapted from Codagnone, Martens, 2016 and Schor, 2014

Sharing economy in Germany: current situation and future prospects

According to the German Statistic Office (Statistisches Bundesamt, n. d.) in 2016 16 % of German GNP came from trade, transportation and hospitality. Transportation and hospitality were the first sectors where sharing started to take place (apartment-/room-sharing or ride-/car-sharing). Thus, German companies should feel the impact of the sharing economy. On the one hand consumers might buy less because they can share instead of buying; on the other hand they could buy more because they will be able to obtain additional income from sharing. Apart from these economic impacts, the authors have also identified impacts upon labour markets, competition and social relations (Peitz, Schwalbe 2016). This paper forms part of a larger project which intends to measure the impact that this trend has on

German companies. It is planned to survey behaviour of German consumer with regard to sharing economy and measure the main drivers of their participation in the sharing economy. A questionnaire based on a solid literature review was distributed among younger Germans between November 2017 and January 2018.

Research by Statista in 2016 (Brandt 2016) has shown that 20 % of Germans have already participated in the sharing economy. That is more than the EU average of 17 % but far below the acceptance rate of France with 36 % participation. Germans consider ride-sharing (72 %), tool-sharing (70 %), bike-sharing (66 %) and car-sharing (62 %) to be best suited for sharing (Brandt 2016); besides tool-sharing all sectors that could affect tourism. With this high acceptance rates, it is surprising that only 9 % of Germans would offer their belongings to be shared with strangers. The remaining 90 % only share with friends or not at all (Verbraucherzentrale Bundesverband (vzbv) 2015). Therefore, 62 % of Germans state, that they prefer sharing offers from enterprise to those of private persons because here quality and reliability is assured (Brandt 2016, PriceWaterhouseCoopers AG 2015). In Germany, young women are more open towards the sharing economy than men and in 2015 were using sharing platforms more than men (10 % versus 7 %, Gaspar und Castaldi 2015, Hellwig et al. 2015). In general, for Germans, economic (make or save money) and ecologic (environment protection) motives were the drivers to participate in the sharing economy (Scholl 2016, Verbraucherzentrale Bundesverband (vzbv) 2015, Gaspar, Castaldi 2015).

METHODOLOGY AND RESEARCH RESULTS

The method employed to survey tendencies in the German society was an explorative study. Structured questionnaires were distributed to German young people via several different polling agents from December 2017 to January 2018. The survey was run nationwide. It comprised several subsections to measure current use, perceptions and future tendencies within the Sharing Economy. Answers were coded on a 5 point Likert scale. Several demographic variables as i.e. gender, age, income, educational status, consumption preferences allow for detailed segmentation of data.

353 complete surveys were gathered among people living in big cities (100,000-600,000 inhabitants). SPSS v.24 was used to analyse the data. An in deep descriptive analysis, univariate and multivariate analyses were developed. The main characteristics of the sample were:

	Male	Female
Number	124	228
Age (Mean)	25.50	24.22

Table 2: *Main characteristics of the sample*

Source: Own elaboration

As can be seen from the sample, the mean age was very young. The overall mean for both gender was 24.42 years old. As can be seen from table 2 men are a little older than women. Women represent 64.8% of the sample and men 35.2%. In order to better understand the sample behavior regarding car sharing use, the sample was classified among age below and above the mean. Thus, age above the mean represents 39.4% of the sample and Age below the mean represents 60.3%.

An analysis of the sample showed, that the most selected choice was never to use car sharing. In fact, 48.6% of the sample never used car sharing in short distance trips and 40.5% never used car sharing in long distance trips. A Spearman Correlation shows that people who use car sharing in long distance trips also use car sharing over short distances. Thus, these variables are correlated. These values are significantly higher than those reported by Brand (2016) who detected a participation in the sharing economy of 20 %. The fact that the sample in this study was very young most likely contributed to this rise in participation.

The sample shows different values for the use of car sharing according to gender both for long distance as well as short distance trips. In the case of short distance trips, men used more car sharing than women in the case of “always” and “sometimes”. In addition, the percentage of men never using car sharing is lower than that of women. However, in car sharing use in long distance trips, men use more car sharing than women in all categories of response. Thus, the first usual response is never to use car sharing for both men and women, very close to the middle of the sample. Nevertheless, when car sharing users are studied, men use it more than women, especially for long trips. This is contrary to what literature says about the use of the sharing economy in general, where women are the dominant users (Gaspar und Castaldi 2015, Hellwig et al. 2015). This could be attributed to the fact that in general men are heavier car users than women and prefer driving to other methods of transportation (Statista, n.d.).

In order to identify the factors involved in the use of car sharing, 37 variable found in previous research (mainly Barnes & Mattesson, 2017) were analyzed. A factor analysis with varimax rotation was run. All factorial loads are >0.4 , which signifies a good good statistic fit with values for Cronbach's alpha of 0.933. A total of seven factors was found. Table 3 shows factor loads and factors means.

Factors	Environmental	Value for Money	Help others	Responsible consumption	Well Being	Identity	Innovation
Mean	3.69	3.51	3.41	3.15	3.10	3.07	2.90
Women	3.78	3.57	3.47	3.17	3.18	3.12	2.87
Men	3.52	3.39	3.31	3.11	2.94	2.97	2.91

Table 3: *Factor loads and factor means*

Source: Own elaboration

In line with previous research (Scholl 2016, Verbraucherzentrale Bundesverband (vzbv) 2015, Gaspar, Castaldi 2015) economic as well as environmental factors were the main drivers to use car sharing followed – in descending order – by the desire to help others, to consume responsibly, to contribute to personal well-being, to define one's identity and to participate in innovation. The order of the factors is almost identical for men and women with the exception of the third and second to last factor (Identity and Well Being) that are exchanged between the gender. Women score higher on all factors except for the innovation factor where men show higher scores. These differences are significant.

CONCLUSION

As this explorative paper has shown, the sharing economy is known in Germany and will certainly continue to grow and to impact the German economy. However, the use of car research is still restricted mainly to metropolitan areas but not far distributed in German larger cities. People in larger cities in Germany seem to have different vision on car sharing use than people in big cities where car sharing is widely deployed. Since public transport is readily available in Germany and also road infrastructure is well developed with free access to main highways (no toll, unique in Europe) Germans are inclined not to share cars but instead use their own car or use public transportation instead.

Regarding the main drivers of car sharing use, regardless of gender or age, environmental concerns are the main important reason. This finding differs from the research in other countries where environmental issues used to appear in latter positions.

Research on this topic so far has taken different paths. Whereas quite a few authors have intended to give a definition of this sector and to explore motives why or why not to engage in sharing, quantitative research on a country base is still scarce. Studies undertaken by private companies (Gaspar & Castaldi, PWC, Verbraucherzentrale) differ widely with regard to knowledge of the sharing economy as well as usage rates (by gender, age, employment status and living situation). Additionally, analysis of the impacts of the sharing economy have so far centered on regulatory aspects since most of them were sponsored by bodies concerned with regulating the economy. What is still missing, is a comprehensive, quantifiable prognostic of the impact on the economy.

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THE IMPACT OF CONSUMER ETHNOCENTRISM ON ATHLETE ENDORSER EFFECTIVENESS – A CROSS-CULTURAL STUDY ON SOURCE CREDIBILITY

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ABSTRACT

The purpose of this study was to investigate the significance of consumer ethnocentrism in the realms of athlete endorsements and its potential effects on endorser credibility. A 3 (consumer nationality) x 3 (endorser nationality) analysis was conducted in a cross-cultural setting in order to explore the effects of an athlete endorser's national identity on the overall effectiveness of an endorsement. The research results suggest that an endorser's national origin has no significant impact on the overall credibility of a spokesperson and that levels of consumer ethnocentrism play a neglectable role in the field of athlete endorsements.

Keywords: athlete endorsement; source credibility; ethnocentrism; endorsement strategy; source models.

INTRODUCTION

Every day, consumers are exposed to 600 to 1,500 advertising messages originating from a wide range of media sources such as radio, social media, television, billboards and many more (Fink, 2011). As a matter of fact, it has become one of the key challenges for marketing practitioners around the globe to cut through the caused advertising clutter and to find effective methods to create and maintain awareness for a company's product or service. One common communication strategy which is pursued to penetrate the overflow of commercial messages is the use of celebrities as endorsers (Shuart, 2007). A celebrity endorser is defined as "any individual who enjoys public recognition and who uses this public recognition on behalf of a consumer good by appearing with it in an advertisement" [McCracken, (1989), p. 310]. Mass media are pervaded with celebrity images paving the way for their symbolization

of idiosyncratic qualities and glamorous images (Giles, 2000). As shown by Erdogan and his associates (2001) celebrity endorsements have proven to achieve far-reaching public relation effects and to be an effective marketing strategy to introduce a new brand to the consumer. Furthermore, they have the potential to generate high recall rates (Ohanian, 1991), boost product images and maximize sales and profits (Agrawal and Kamakura, 1995). All in all, celebrity endorsements have demonstrated to be an effective tool for communicating advertising messages. This is substantiated by the fact that they were used in approximately one of every four advertisements in 1997 (Shimp, 1997); a number which is likely to have even increased since that time. In Asian countries like Korea or Japan, more than 70 % of all television ads feature one or more celebrities nowadays (Kim, 2006). It is undeniable that celebrity endorsement has become a “worldwide advertising phenomenon” [Um, (2013), p.157].

Athletes belong to one of the most frequently used categories of endorsers in advertisement because they “are some of the most recognizable, revered, and imitated celebrities of all” [Shanklin and Miciak, (1997), p.1]. Although athlete endorsements are not a novel approach, they are quickly gathering momentum nowadays. Marketers are increasingly making use of sport stars to promote their products, amounting to more than \$12 billion spent on endorsement deals in 2011 (Livingston and Grant, 2011). With increasing global competition and financial pressure, choosing the right athlete endorser becomes crucial for marketers (Erdogan, 1999). Many scholars have constructed models to ease the selection process; however, celebrity endorsement strategy stays a “two-edged sword” [Erdogan, (1999), p.292]. Whereas effective endorsement deals have been seen to hold various benefits for both the spokesperson and the brand, the risks of poor performance, intolerable behaviour, misconduct and other negative perceptions are casting shadows over the use of celebrity sports endorsers (Lear et al., 2009).

With the celebrity endorsement strategy entering the global playground, marketers find themselves confronted to new challenges. International advertisers often try to standardize advertising measures by making use of identical strategies in different countries (Choi et al., 2005). However, the debate on the standardization of advertising measures involving celebrity endorsers has not yet reached a clear decision. Whereas some scientists such as

Erdogan (1999) believe that the use of celebrities with worldwide recognition can overcome cultural barriers, others argue that “every country has its own culture(s), which may very well affect the importance of [selection] criteria” [Erdogan et al., (2001), p.46]. So far, most research on celebrity endorsement has been based on studies confined to a single culture originating from either the US or the UK (Desmarais, 2014). Therefore, cross-cultural research is urgently needed in order to reveal universally usable practices and noteworthy differences of endorser effectiveness across countries.

In 2005, Chao, Wührer and Werani have demonstrated that an American endorser will not necessarily generate purchase intention in Austria, naming consumer ethnocentrism as a possible explanation for their findings. They suggest that using foreign celebrity endorsers “can actually be a liability, particularly if there are strong ethnocentric tendencies” [Chao et al., (2005), p. 188]. However, the study was only carried out in one country and further research on that topic, focusing especially on athlete endorsers, is lacking. Therefore, this paper investigates whether consumer ethnocentrism is a prevalent phenomenon in the field of celebrity athlete endorsements as it is of major importance for strategic decision making in the global marketplace. Recapitulating the enormous financial implications of celebrity athlete endorsements, theoretical gaps concerning their use in a cross-cultural context need to be filled in order to ensure that companies’ strategies and investments achieve the desired effects.

LITERATURE REVIEW

Source models

Research has identified various models and theories that explain how the endorsement process works and how selection mechanisms should be adjusted to render an endorsement effective (Desmarais, 2014). One of the earliest models that has been presented by scholars is the Source Credibility Model dating back to 1953. This model, which was originally developed for the study of communication, belongs to the category of the so-called Source Models which state that certain characteristics of a communication source may positively influence overall message receptivity (Meenaghan, 1995). The Source Credibility Model developed by Hovland and his associates contends that the effectiveness of an advertisement

message depends on the perceived level of expertise and trustworthiness of an endorser (Hovland et al., 1953). If an endorser scores high on those two attributes, he or she is also perceived as highly credible. The more credible a source is, the more persuasive this person and the featured advertisement is likely to be (Karlins and Abelson, 1970). As defined by Hovland (1953, p. 21) expertise is “the extent to which a communicator is perceived to be a source of valid assertions”. Thus, expertise strongly correlates with the skills, knowledge and experience of an endorser. Supporting the Source Credibility Model, a celebrity that is more expert has been proven to be more persuasive (Aaker and Meyers, 1987) and to generate higher purchase intentions (Ohanian, 1991). The second source characteristic trustworthiness refers to the consumer’s confidence in the endorser for “providing information in an objective and honest manner” [Ohanian, (1991), p.47]. It is closely tied to the integrity, honesty and believability of the source. In general, it has been proven that consumers trust endorsers who are similar to them (Kelman, 1961). An endorser’s ethnic status can therefore influence perceived trustworthiness and brand attitudes as shown by Desphande and Stayman (1994). Their findings suggest that consumers perceive similar ethnicity as an indicator that the endorser holds beliefs that are consistent with those of the consumer and therefore acts within the best interest of the message recipient. Consequently, consumers are more likely to positively evaluate advertising messages from endorsers who are similar to them and who they feel they can trust. Multiple studies have proven that highly credible sources have a positive effect on purchase intentions (Lafferty and Goldsmith, 1999) as well as on consumers’ attitudes towards the advertisement and the brand (Goldberg and Hartwick, 1990). However, the Source Credibility Model is also target for criticism as various scholars argue that the whole spectrum of endorser effectiveness is only partly explained by this unidimensional approach (Ohanian, 1991).

The Source Attractiveness Model is the second Source Model used in the field of endorsement strategy. It contends that the effectiveness of an advertisement message depends on the similarity, familiarity and liking of an endorser (McGuire, 1985). Consumers usually hold positive stereotypes about attractive endorsers which can be explained in terms of the so-called Consistency Theory (Solomon, 1996). The Consistency Theory states that individuals feel more comfortable when all their judgments about a person fit together. An attractive endorser is consequently benefiting from a so-called halo effect. Because of his or

her good physical appearance or personality, the endorser might be assumed to hold more social power, to possess more positive character traits, to have the ability to influence others, and to be more persuasive (Joseph, 1982). Through the increasing use of celebrities as endorsers, attractiveness has become a decisive dimension of source credibility (Erdogan, 1999). It is undisputed that attractive celebrity endorsers enhance attitudes towards the advertisement and the featured brand, but whether they are able to generate purchase intention is still ambiguous as scholars advocate contrary findings (Erdogan, 1999). Similar to the Source Credibility Model, source attractiveness is considered to be incapable of explaining endorser effectiveness in its entirety. Thus, many scientists suggest that the theoretical construct of source credibility should be complemented by endorser-product congruence (Lee and Koo, 2015).

Source credibility

Overall, the term source credibility is used to refer to an endorser's positive characteristics that influence the consumer's acceptance of an advertisement message (Ohanian, 1990). In the field of celebrity endorsements source credibility is mainly based on two models: The Source Credibility Model of Hovland and his associates and McGuire's Source Attractiveness Model. Resulting from those theories three credibility dimensions have been established which enjoy a high level of acceptance in endorser effectiveness research: expertise, trustworthiness and attractiveness. Research evidence suggests that the three source credibility dimensions can make independent contributions to the effectiveness of an endorser (Weiner and Mowen, 1985). An athlete endorser could consequently be perceived as an expert but neither be evaluated trustworthy nor attractive. Even if it seems reasonable to think that the perceived credibility of an endorser is completely subjective and differs from one consumer to another, it has been revealed that a high degree of agreement exists among individuals (Berscheid et al., 1971).

Consumer ethnocentrism

Consumer ethnocentrism originates from the general concept of ethnocentrism which was first introduced in sociology and is defined as "the technical name for this view of things in which one's own group is the centre of everything, and all others are scaled and rated with

reference to it" [Sumner, (1906), p.6]. This definition implies the perception of the other groups' inferiority while one's own group is characterized by feelings of pride and superiority (Siamagka and Balabanis, 2015). Regarding consumption, ethnocentrism usually refers to consumer biases in favour of domestic over foreign products (Shimp and Sharma, 1987). For an ethnocentric consumer purchasing foreign goods is immoral and unpatriotic as it hurts the domestic economy and fellow workers. On the contrary, non-ethnocentric consumers evaluate domestic and foreign goods dispassionately and make purchase decisions based on quality and performance aspects alone.

Multiple scholars have shown that ethnocentrism levels depend heavily on demographic variables such as gender, age, education and income (Balabanis et al., 2001). Older consumers for example, are more likely to be conservative and might be more receptive for messages emphasizing the negative effects of global competition (Tragos, 1998).

Indeed, ethnocentrism seems to function as a "[...] self-defense reflex of local economies, governments, organizations, and individuals against the threat of imports and foreign competition" [Siamagka and Balabanis, (2015), p. 66]. As a result, consumer ethnocentrism is a crucial factor for international marketers in terms of global branding (Guo, 2013), market entry mode decisions (Fong et al., 2014) as well as standardization strategies (Keillor et al., 1996).

So far, the celebrity endorsement process has only been timidly explored from an international practitioner's perspective as most research has been conducted within a certain culture or nation (Desmarais, 2014). However, it seems undisputed, that an endorser's nationality influences the effectiveness of celebrity endorsements (Dom et al., 2016). Nevertheless, neither research nor the companies themselves seem to have found a clear answer on whether it is better to use a domestic endorser or a well-known international but foreign celebrity when advertising in a certain market. On the one hand, there are studies like those of Dom and his associates (2016) which have shown that Malaysian consumers hold positive feelings towards the use of foreign endorsers and rate the correspondent advertisements as more effective than those featuring a national celebrity. While the authors suggest that foreign endorsers do not necessarily cause consumer ethnocentrism, it has to be kept in mind that this statement might only be true for less developed countries such as

Malaysia. Malaysians may associate the use of a foreign celebrity with a bigger scale company and tend to rank products made in developed countries as having higher product quality than local products (Ghazali et al., 2008). But also besides those findings, scholars have suggested that “[...] celebrities with worldwide recognition and popularity [...] transcend national borders and overcome cultural barriers in global marketing communications” [Choi et al., (2005), p. 85].

On the other side, a study of Chao and his associates (2005) revealed that the use of local sports stars might have its legitimacy as well, as they have identified ethnocentric tendencies among their target group. In their research among Austrian consumers a non-celebrity spokesperson scored significantly higher on purchase intentions than an US celebrity endorser. As generally celebrity endorsements are expected to be more effective than non-celebrity endorsements (Kamins, 1935), consumer ethnocentrism was named as a possible explanation for this observation. Another study conducted by Desmarais (2014) confirms the existence of ethnocentrism in the field of athlete celebrity endorsements. Desmarais investigated the endorser selection process by interviewing advertising practitioners of ten countries. His main findings suggest that the selection process is heavily influenced by multiple cultural pressures and that all advertising practitioners across countries exhibit some form of ethnocentrism in their practice. One principal criterion for choosing an athlete celebrity is his or her cultural attractiveness which implies a “[...] fit with a range of culturally acceptable traits for the national audience” [Desmarais, (2014), p.324]. As the interviewed practitioners argued, an athlete endorser’s belonging to the same in-group fosters the identification with the spokesperson and consequently overall endorser effectiveness. Supporting the point of view that consumer ethnocentrism might indeed be a crucial factor for athlete endorser effectiveness, Desmarais concludes that sport star endorsements depend “[...] greatly on the market in which [they] operate and suggests that, to be useful, a celebrity athlete endorser needs to be as culturally meaningful and relevant as possible within the national context it is used” [Desmarais, (2014), p.325].

All in all, it must be noted that the influence of consumer ethnocentrism on endorser effectiveness is barely explored and that findings of existing research are extremely ambiguous.

METHODOLOGY

Hypothesis development

In order to investigate the influence of an athlete endorser's nationality on the endorsement process, the researcher focused solely on the Source Models, as those theories place the celebrity's traits and characteristics in the centre of endorser effectiveness (Meenaghan, 1995). The congruence of product and endorser covered by the Product Match-Up Hypothesis of Kahle and Homer (1985) is barely influenced by an endorser's nationality on the other hand and was evaluated unsuitable for this particular study.

When reviewing both the Source Credibility Model and the Source Attractiveness Model, it appears likely that an athlete endorser's perceived credibility is influenced by a sports star's national background. Already early in research, scholars argued that message sources with the same ethnicity as the viewer might possess higher levels of influence compared to sources with a different race (Brock, 1965). As further indicated by Desphande and Stayman (1994), consumers rate endorsers who have an identical ethnic background as more trustworthy. Trustworthiness as one factor of source credibility might therefore be subject to ethnocentric tendencies. As revealed by McGuire's Source Attractiveness Model (1985), the credibility dimension attractiveness is also closely related to the construct of similarity. If consumers rate athlete endorsers who are similar to them as more attractive, ethnocentrism might be a prevalent phenomenon for this dimension as well. In accordance with these findings, the following research hypothesis is proposed:

H₁: Consumers perceive athlete endorsers with an identical national background as more credible than foreign athlete endorsers.

To investigate whether all three dimensions of source credibility are equally affected by ethnocentrism, the following differentiation is made:

H_{1a}: Consumers perceive athlete endorsers with an identical national background as more *attractive* than foreign athlete endorsers.

H_{1b}: Consumers perceive athlete endorsers with an identical national background as more *trustworthy* than foreign athlete endorsers.

H_{1c}: Consumers perceive athlete endorsers with an identical national background as more *expert* than foreign athlete endorsers.

Research design

The overall research design was a 3 (consumer nationality: German, French and US-American) x 3 (athlete endorser nationality: German, French and US-American) between-subjects design which resulted in the creation of nine experimental conditions. The survey was conducted using a self-administered survey questionnaire. In alternative data gathering situations such as personal interviews, respondents tend to answer based on what they perceive to be more socially desirable instead of indicating their own opinion and behaviour (Zikmund, 1997). When talking about ethnocentric tendencies, some participants might therefore be influenced by a present interviewer. To avoid this manipulation, the presented data collection method was deliberately chosen.

In order to test the research hypotheses, nine experimental conditions were created with the help of three online survey questionnaires in either German, French or English language. With the support of both a bilingual French and a bilingual US-American forward-back translation was used to prevent conceptual dissimilarity of the three questionnaires. In addition, high priority was assigned to the identity of the versions' layout to guarantee equivalence of the research material.

The online questionnaire was prepared in two main sections comprising nine questions. The aim of the first section was to gather demographic information such as age, gender and nationality of the participants. Moreover, participants had to decide upon one of three scenarios to continue with the second section of the questionnaire. Each scenario introduced the participants to an advertisement featuring a sports star with a different nationality. Whereas "Scenario A" always presented an athlete having the same nationality as the respective participant group, the other two scenarios featured celebrity athletes from different nations. The intention behind the creation of two scenarios displaying foreign endorsers was to reveal whether ethnocentric tendencies were equally pronounced for both experimental conditions or whether the national origin had a more differentiated effect. In the beginning of the second section participants were introduced to several stimulus

materials. Firstly, a fictitious advertisement for a protein bar was depicted portraying an imaginary celebrity athlete endorser.



Figure 1: *English stimulus material*

The creation of a fictitious brand had the purpose of eliminating any potential consumer predispositions towards the featured product (Petty et al., 1983). Additionally, the use of a bogus athlete endorser offered various advantages with respect to experimental control (Till and Busler, 2000). When using well-known sports stars, respondents' knowledge and attitude towards the endorser can vary significantly reducing the power of the study. All in all, using both an imaginary brand and endorser minimizes the opportunity for unintended spurious confounds and within-group variations, hereby gaining high internal validity. The focus of the advertisement was clearly on the depicted athlete who in real life is a professional German mountain biker only scarcely known within Germany or on an international stage. The advertised product, a protein bar, was chosen to comply with the conditions of the Product Match-Up Hypothesis (McCracken, 1989). As indicated by various scholars, source credibility and endorser-product congruence need to go hand in hand in order to maximize the effectiveness of celebrity endorsements (Lee and Koo, 2015). As it has been proven, athlete endorsers can be well paired with sport-related products such as energy bars as they are perceived as having high levels of expert power for this specific product type (Natarajan and Chawla, 1997). In order to create the most favourable framework conditions, the fit between product and athlete was hence essential.

The second stimulus material provided was a short information text about the depicted athlete presenting him as a worldwide successful racing cyclist. Furthermore, the text indicated the endorser's nationality which was either French, German or US-American depending on the chosen scenario. Besides the mentioned names and nationalities, the

information text was completely identical for all three scenarios. After being asked to closely examine both the advertisement and the text participants were invited to answer questions on the athlete endorser's perceived credibility making use of Ohanian's Source Credibility Scale (1990). The three credibility dimensions attractiveness, trustworthiness and expertise were measured using seven-point Likert scales.

Participants

In total 354 people from three national backgrounds completed the online survey questionnaires for the research. The average age of participants was 31 years ($\mu = 31.08$) resulting from the fact that the majority of respondents belonged to the group of 15-to-30-year-olds (63.3 %). The age bandwidth ranged from 13 years to 70 years which ensured a feedback from a relatively large group of potential consumers. Of the total study participants 59.9 % ($n = 212$) were female, and 40.1 % ($n = 142$) were male.

Moreover, the final sample consisted of 127 US-Americans (35.9 %), 111 Germans (31.4 %) and 116 French individuals (32.8 %). Among those three national samples age varied slightly. Whereas the average age of French participants was 24 years ($\mu = 23.83$), Germans were, on average, 33 years old ($\mu = 32.71$) and US-Americans 36 years old ($\mu = 36.29$). This difference could be explained by the different recruitment methods. Whereas many of the German and US participants were acquired via mail, French respondents were mainly contacted through social media. As this medium might be preferred by a younger target group, the resulting discrepancy seems reasonable.

RESULTS

Scale reliability

Cronbach's Coefficient Alpha is the most widely used test of internal reliability and was determined in order to examine the utilized multi-item measures. Cronbach's Alpha varies between 0 implying no internal reliability and 1 representing perfect reliability whereas the minimum acceptability of reliability is 0.7 (Burns and Burns, 2008). As it is outlined in Figure 2 all multi-item measures, including attractiveness, trustworthiness and expertise as well as the source credibility scale as a whole exceeded by far the minimum acceptability level. The

high alpha values indicate that the items used to measure each respective construct have a high level of internal consistency and are reliable for this study.

	α
Attractiveness	.834
Trustworthiness	.917
Expertise	.939
Source Credibility	.931

Figure 2: *Cronbach's Alpha*

Hypothesis testing

Hypothesis 1 predicted that consumers would perceive an athlete endorser with an identical national background as more credible than a foreign athlete endorser. Consequently, it was assumed that participants would evaluate the endorser more positively when they were exposed to an advertisement featuring a domestic athlete compared to an advertisement displaying a foreign sportsman. Overall, it was expected, that US consumers would assign the highest credibility ratings to an US athlete, German consumers would evaluate the German athlete most positively and French consumers would assess their compatriot as most credible. In order to compare the source credibility levels between the domestic and foreign endorsers, independent sample t-tests were conducted for all national samples.

Consumer nationality	μ_1 (endorser nationality)	μ_2 (endorser nationality)	p-value*
US-American	4.43 (US-American)	4.53 (German)	0.315
	4.43 (US-American)	4.82 (French)	0.041
German	4.44 (German)	4.41 (US-American)	0.453
	4.44 (German)	4.35 (French)	0.372
French	4.10 (French)	4.09 (German)	0.480
	4.10 (French)	4.19 (US-American)	0.372

* for $\alpha = .01$

Figure 3: *Summary table- Source Credibility*

The results demonstrate that, on average, neither the US-American nor the French consumers rated the endorser with an identical nationality as most credible. Only within the German sample, the domestic endorser was evaluated more positively than his foreign counterparts. As it can be further stated from the table, none of the differences between a foreign and domestic endorser were

statistically significant. On the contrary, the majority of the tests resulted in very large p-values which imply that it is indeed very likely that local and foreign endorsers are perceived equally credible by consumers. Consequently, hypothesis 1 is not supported.

Moreover, hypotheses 1a to 1c predicted that consumers would perceive an athlete endorser with an identical national background as either more attractive (H_{1a}) or more trustworthy (H_{1b}) or more expert (H_{1c}) than his foreign counterparts. Those hypotheses were stated to investigate whether all three source credibility dimensions are equally affected by potential consumer ethnocentrism or whether there are differences in consumers' perceptions. As it can be inferred from Fig. 4 results between the US, German and French samples differed importantly.

Consumer nationality	Credibility dimension	μ_1 (endorser nationality)	μ_2 (endorser nationality)	p-value*
US-American	Attractiveness	4.15 (US-American)	3.90 (German)	0.137
		4.15 (US-American)	4.29 (French)	0.273
	Trustworthiness	4.56 (US-American)	4.58 (German)	0.433
		4.56 (US-American)	4.84 (French)	0.101
	Expertise	4.71 (US-American)	5.12 (German)	0.084
		4.71 (US-American)	5.33 (French)	0.015
German	Attractiveness	3.96 (German)	4.06 (US-American)	0.320
		3.96 (German)	4.20 (French)	0.153
	Trustworthiness	4.71 (German)	4.44 (US-American)	0.170
		4.71 (German)	4.48 (French)	0.227
	Expertise	4.63 (German)	4.73 (US-American)	0.352
		4.63 (German)	4.38 (French)	0.216
French	Attractiveness	3.52 (French)	3.65 (German)	0.306
		3.52 (French)	4.12 (US-American)	0.031
	Trustworthiness	4.21 (French)	4.30 (German)	0.382
		4.21 (French)	4.33 (US-American)	0.366
	Expertise	4.59 (French)	4.34 (German)	0.187
		4.59 (French)	4.12 (US-American)	0.085

* for $\alpha = .01$

Figure 4: Summary table- Credibility dimensions

The US consumers rated the French endorser as most attractive, most trustworthy as well as most expert, whereas the US endorser, their fellow native, received the lowest average ratings for trustworthiness and expertise and ranked only second in attractiveness. The overall picture varied a lot within the German sample. Whereas the German endorser was perceived as most trustworthy with a rating of 4.71, he was evaluated as least attractive and ranked second in expertise. All in all, for the German sample, the French endorser received the highest attractiveness ratings, the German endorser was perceived as most trustworthy and the US-American endorser as most expert. Finally, the French consumers, assigned the highest ratings of attractiveness and trustworthiness to the US-American endorser whereas the French endorser had the lowest average score in those two credibility dimensions. Nevertheless, the French athlete was perceived as most expert, a dimension in which the US endorser was assessed worst.

All in all, there was no unique pattern observable when comparing the different samples. In accordance with the overall source credibility ratings, none of the differences between the credibility dimension ratings were statistically significant. Consequently, the outcomes of the sample t-tests suggest that the perceptions of attractiveness, trustworthiness and expertise do not considerably vary when observing a domestic or a foreign sports endorser. It follows that none of the hypotheses 1a, 1b and 1c are supported.

In addition to the analyses described above, age and gender manipulations were performed in order to verify whether different demographic groups would perceive domestic and foreign endorsers differently. As stated by multiple scholars, ethnocentrism levels depend heavily on demographic variables and might therefore yield significant differences for certain participant groups (Balabanis, Mueller and Melewar, 2001). Following the procedure of the already performed hypothesis testing, individual sample t-tests were conducted for all average ratings including source credibility, attractiveness, trustworthiness and expertise. One by one only answers of female, male, over 45-year-old or 45-year-old and younger respondents were taken into consideration. Perceptions of male and female respondents demonstrated a high degree of similarity among all samples. However, a clear tendency could be identified when comparing the outcomes of the analyses for the younger and older respondents. In most of the cases, the group of the over-45-year-olds, perceived the domestic sportsman as more credible, attractive, trustworthy and expert compared to a foreign one. For the younger respondents group, on the other hand, endorsers often received similar results regardless of their origin. In many cases, the foreign endorser was even rated higher than the local endorser. Within the group of the over 45-year-olds, for example, US-American consumers perceived the US athlete as significantly more attractive ($p\text{-value} = 0.003$) than the German athlete. For the younger fraction of the US consumers, however, the German athlete received even slightly higher attractiveness ratings ($\mu =$

3.91) than the US athlete ($\mu = 3.83$). Still, besides this example, none of the differences between a foreign and domestic endorser were statistically significant for any demographic group. However, it might be worth to investigate the consumers' age effects on endorser perceptions in detail.

DISCUSSION

Discussion of research findings

The purpose of the current study was to examine the influence that an endorser's nationality and potential consumer ethnocentrism exert on the source's perceived credibility. It was hypothesized that, in line with Desmarais (2014), an athlete endorser with an identical nationality as the consumer, would be perceived as more credible and would consequently infer a more effective endorsement deal than the use of a foreign sportsman. However, the results of the analysis contradicted the hypothesized effects of an endorser's national origin. The study revealed that there are no significant differences between the perceptions of a domestic athlete and a foreign one. Consumers reported similar evaluations of an endorser's attractiveness, trustworthiness and expertise which also entailed almost equal source credibility perceptions among all scenarios. These results clearly contradict the findings of McGuire (1968) who stated that similar characteristics between sources and viewers are critical for the viewers' perceptions towards the sources.

These discrepancies might be well explained by the development of global market communications which have experienced drastic changes since the time of McGuire's studies. Especially mass media enabled celebrities such as Michael Jordan to move beyond national borders and to gain awareness and reputation not only in a national context, but around the world (Choi et al., 2005). Therefore, it seems true, that athletes with worldwide popularity or success have the power to transcend feelings of national affiliation and to overcome cultural barriers (Erdogan, 1999).

Therefore, it can be concluded that consumer ethnocentrism has no influence on the overall effectiveness of an athlete endorsement in a cross-cultural setting. This heavily contradicts Chao and his associates' findings (2005) which suggest that a foreign celebrity endorser can be a liability when used in different national settings. One possible explanation for these contrasting results could be the investigated endorser category. Whereas the present study focused solely on the athlete endorser, Chao and his associates based their allegations on the example of a celebrity actor. Consequently, it is conceivable that consumer ethnocentrism might be an important factor within other endorsement categories. Indeed, it seems reasonable that the field of sports symbolizes a special case as well as a unique opportunity for global marketing communications. The main reason for this stand-alone position might be the well-progressed globalization of sports: Athletes from different countries and ethnicities participate in professional leagues around the globe, the number of nations participating in

international sport events is steadily increasing, international sport management firms are growing everywhere and broadcasting rights of both international and national sport events are sold to media firms in countries all over the world (Thibault, 2009). As Miller and his associates explain, “sport is probably the most universal aspect of popular culture” [Miller et al., (2001), p.1].

This also entails important managerial implications. As already stated earlier in the course of this work, the level of consumer ethnocentrism is crucial for strategic decisions on standardization of advertisement efforts. The findings of this study support that standardized advertising across various national markets is a valuable strategy when featuring a worldwide successful athlete endorser. Especially when considering the growing financial pressure and increasing competition going hand in hand with the use of an athlete endorser, standardization could be an important means for saving human and financial resources and for becoming more competitive in a fiercely contested market (Livingston and Grant, 2011). Nevertheless, it should be noted, that the use of a globally successful athlete endorser does not justify the standardization of the entire advertising efforts as different cultural orientations have different impacts on the content and style of an advertisement (Um, 2013). Whereas the same athlete endorser might be used across several countries, his or her positioning within the advertisement might vary widely depending on the cultural framework in which it is used.

Limitations

The current study has a few limitations which need to be recognized. Firstly, incomparability exists among the three national samples of the main study. Whereas the average age of the German and US participants was relatively similar, the French respondents were on average ten to fourteen years younger. As identified during the age and gender manipulation checks, age might be a decisive factor for varying endorser perceptions. Therefore, future studies should consider selecting equal numbers of participants from all age groups. Secondly, the translations of the questionnaires might represent an important limitation of the research. Although translation equivalence was maximized through careful forward-and-backward translation, a perfect translation equivalence is almost unrealistic. Consequently, psychometric properties of the utilized scales might slightly differ between versions and for every analysis.

Furthermore, the use of a fictitious brand and endorser in the course of the main study has led to the loss of economical validity of the research. The use of a real endorser on the other hand would have introduced important within-group variations and minimized construct validity. Nevertheless, participants might have different perceptions towards a real-world athlete. In addition, athlete endorser’s sex might also affect the various ratings. In the current research, the stimulus material only

presented a male athlete endorser. However, a female athlete might provoke differing consumer responses and research results.

Finally, the major limitation is represented by the utilized convenience sampling method. The method was chosen in order to facilitate the distribution of the survey across borders. Nevertheless, the method also implies significant problems concerning the generalization of the research findings to other populations. It follows, that the study should be replicated in another research setting in order to validate the presented results.

Future research suggestions

Based on the current work, several future research suggestions can be made. First of all, future research should verify the study's findings by making use of different sampling methods and various national consumer samples. As the present study only compared perceptions of German, US-American and French consumers, other nationalities should be investigated as well. One interesting aspect could be the comparison of less and highly developed nations as proposed by Dom and his associates (2016). Moreover, actual celebrity athletes of different sex should be used to validate the findings in real-world conditions.

In addition, the identified effects of a consumer's age should be further examined. Therefore, consumers need to be categorized in smaller and numerous age groups to get a more detailed view. Because of the focus of this work, consumers were only classified into two age groups. For a qualified assessment of age effects, the study should be replicated with equal numbers of different age groups which need to be analysed with intense scrutiny.

Moreover, ethnocentric tendencies should be investigated not only with regard to endorser nationality but also to a spokesperson's ethnicity. As proposed by Brock (1965), message sources with an identical ethnicity as the consumer exert greater influence on the viewer compared to sources with a different ethnicity. For the present study, however, only one Caucasian endorser was used for each national sample. To rule out any existence of consumer ethnocentrism in the fields of athlete endorsements, scholars need to investigate endorsement effectiveness in the light of differing athlete ethnicities as well.

Future research should also focus on other endorser types than athletes such as actors, musicians or politicians. It will be interesting to see whether consumer ethnocentrism is a present phenomenon within other categories or whether the findings of the present study could be generalized to a number or even all endorser types.

CONCLUSION

The main objective of this research was to examine the impact of an athlete endorser's national identity on consumer perceptions of source credibility. Hereby, the present work was among the first studies that investigated the effectiveness of athlete endorsements across borders and will therefore add to the body of literature in both cross-cultural marketing communications as well as sports marketing. Especially in the light of the increasing globalization of sports and the accelerating usage of athlete endorsers in marketing communications, the study will be beneficial for advertising practitioners as well as academics worldwide.

The findings provide marketing practitioners with a clear guidance on the selection of an athlete endorser. Marketers should be aware that the national origin of an endorser has a neglectable influence on consumer perceptions and on the overall success of an advertisement. Indeed, this study suggests that an athlete endorser's nationality and his or her classification as 'foreign' or 'domestic' has no significant impact on the effectiveness of an endorsement deal. It follows that national identity and identification can be assumed of only minor priority in the endorser selection process. Thus, from a managerial perspective, standardization decisions should be a major consideration when planning successful international advertising campaigns. Those findings are extremely valuable when considering Desmarais' research results (2014). The scholar investigated the athlete endorser selection process from a practitioner's point of view and revealed that marketers around the globe exhibit some form of ethnocentrism and national categorization in their practices. The current study disclosed that those methods might be extremely ineffective and that practitioners need to urgently reconsider the basis of their selection process in order to stay competitive.

Clearly, more research is necessary before the generalization of the findings; however, the current work has led an empirical path for future discussions and research. Undoubtedly, it has demonstrated that marketing practitioners as well as academics need to reconsider consumer attitudes towards endorsers as cultural phenomena such as sport allow borders to blur and ethnocentric tendencies to vanish.

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GREEN CONTROLLING IN SME: FINDINGS OF AN EMPIRICAL STUDY IN BADEN-WÜRTTEMBERG

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ABSTRACT

Sustainability has established itself as a term in everyday life. Regulations and laws have led to public reporting. Nevertheless, the planning and management of the three sustainability dimensions still seems to be in its infancy in many companies, especially in small and medium-sized ones. Based on literature and study evaluations, a qualitative study was therefore conducted on the subject of "Green Controlling in SME in Baden-Württemberg". Expert interviews were used for this purpose. The results are interesting and promising at the same time.

Keywords: Green Controlling, sustainability, SME, Baden-Württemberg, Germany, management control, triple bottom line

INTRODUCTION

Sustainability has established itself as a term in everyday life. Standards and laws have led to public reporting. Nevertheless, the planning and management of the three sustainability dimensions still seems to be in its infancy in many companies, especially small and medium-sized ones. To find out more about the status of "Green Controlling" in SME more research seems to be needed. Our paper tries to explore the situation of management control in SME related to sustainability.

LITERATURE REVIEW

Sustainability nowadays is a common and wide-ranging term used in politics, business and society. Despite or perhaps because of its popularity, no clear definition has been able to establish itself so far (Spindler, 2012). The Brundtland report, published by WCOED in 1987 made an important contribution to the debate on sustainability and sustainable development (Corsten and Roth, 2012b). The original text tells: "Sustainable development [...] meets the needs of the present without compromising the ability of future generations to meet their own needs" (WOECD, 1987). The background to this is intra- and intergenerative fairness, which means fairness within the present generation as well as between generations (Carsten and Roth, 2012a). John Elkington developed the

term into the Triple Bottom Line in 1994, which illustrates the increase in value from an economic, ecological and social perspective (Elkington, 2002; Kuhn, 2009). Its relevance in the sustainability debate is also demonstrated by the triple bottom line in corporate reporting, which was called for by the EU Parliament in 2002 (European Commission, 2002). Today the triple bottom line (TBL) accounting approach is widely applied. The expression "bottom line" refers to "profit" or "loss".

Usually management control or "Controlling" is associated with financial planning and control (e. g. Britzelmaier, 2017). Common definitions are given e. g. by the International Controller Association (ICV, 2017), Horváth (2009) or Weber and Schäffer (2016). These different definitions have in common the tasks of planning and control to support corporate goals and management decisions. The controlling tasks in practice have developed in four steps from the German beginnings in the 1950s to the present day. Initially developed as a "success assurance and cost accounting" (Controlling 1.0) and further developed through a "coordination of the management systems" (Controlling 2.0) and a "safeguarding of rationality in the entire company" (Controlling 3.0), Controlling is currently understood as a "partnership of managers and controllers in the age of intelligent networking" (Controlling 4.0) (Steinke and Schmidt, 2017). Even though the final responsibility for the implementation of green controlling lies with the management, the literature agrees that the controllers also take on decisive tasks in its implementation (Isensee and Henkel, 2011; Steinke et al, 2014). Consequently, the tasks are basically to integrate ecological objectives into the existing controlling processes and instruments of individual functional areas in order to ensure transparency, control, efficiency and effectiveness of these (Horváth et al, 2012; Isensee and Henkel, 2011; Steinke and Schmidt, 2017; Weber, 2015). Accordingly, green controlling can be understood as an "extension of the tasks, processes and instruments of controlling to include aspects of ecological sustainability" (ICV, 2011).

Small and medium-sized enterprises are considered as the employment engine and backbone of the German economy, since they contribute significantly to the gross domestic product (Arbeitsgemeinschaft Mittelstand, 2016; IfM Bonn, 2017). Although there is broad agreement on the economic relevance of small and medium-sized enterprises, there is no clear definition of the term in the literature to date. Instead, there are several classification approaches that contain narrower and more detailed delimitations and thus contradict each other (Becker et al, 2015). In this paper the definition of SME by the European Centre of Competence for Applied Small and Medium-Sized Business Research (EKAM) is applied. The definition of the EKAM, formerly Deloitte-Mittelstandsinstitut, at the University of Bamberg combines quantitative criteria with the qualitative characteristics mentioned above and therefore takes better account of the special characteristics of medium-sized enterprises than the exclusively quantitative definitions of the European Commission,

the IfM or the German Commercial Code. By combining the qualitative and quantitative criteria, the definition of EKAM encompasses all "owner-managed companies and family-run businesses as well as manager-managed companies with up to 3,000 employees and/or a turnover of 600 million euros" (EKAM, 2017).

The first studies on the consideration of sustainability were already carried out in the mid-1970s (Schaltegger et al). Rising social costs and increasing criticism of existing accounting systems led Ullmann to the conclusion that companies that only strive for economic goals in the sense of profit maximization would damage their reputation in the long term. He therefore called for new approaches to expand traditional accounting and developed a corporate environmental accounting system for the first time (Ullmann, 1976). Triggered by the World Summit, the Brundtland Report or publications by Pearce, Markandya and Barbier (Pearce et al, 1989), it took about two decades for Environmental Management Accounting to change from a niche problem to a widespread research topic (Schaltegger, 2011).

In both the English and German-speaking countries, two core themes were at the forefront of this process. On the one hand (1) recognition and measurement aspects in the sense of environmental management accounting (EMAS) and, on the other hand, (2) management aspects due to the development of key figures within the framework of environmental management control (Horvath and Berlin, 2016; Schaltegger et al, 2011). It is striking that only a few quantitative studies were carried out, but primarily qualitative studies that were oriented from the outset towards the challenges of practice (Horvath and Berlin, 2016; Schaltegger et al, 2011). At the beginning of the 1990s, for example, Gray and Gray, Bebbington and Walters first explained the effects on accounting in taking ecological aspects into account (Gray, 1990; Gray et al, 1993) before Ditz, Ranganathan and Banks identified environmental costs for the first time (Ditz et al, 1995) and Bennet and James evaluated a large number of case studies in this respect (Bennett and James, 2000). Schaltegger and Buritt rounded off the development of EMAs with the first comprehensive publication on eco-efficient accounting (Schaltegger and Buritt, 2000).

Although the focus up to the year 2000 was primarily on the acquisition and valuation aspects, initial contributions to control aspects were also published at the beginning of the 1990s (Günther, 1994; Hallay and Pfriem, 1992; Schaltegger and Sturm, 1995; Wagner and Janzen, 1991). Conceptual contributions by Hallay and Pfriem (1992) as well as Schaltegger and Sturm (1995) showed early on, using examples, the possible organisational integration and implementation of eco-controlling in medium-sized companies. Above all, however, the expansion of specific controlling instruments since the beginning of the millennium has set in motion a continuous development towards ecologically oriented management of the company (Horváth and Berlin, 2016). First and foremost, the

Sustainability Balanced Scorecard (Deegen, 2001; Fahrbach et al, 2000; Figge et al, 2001) as well as the process costing extended to include sustainability aspects (Herbst, 2001) or target costing (Berlin, 2015; Herbst, 2001) should be mentioned. While initially almost exclusively qualitative studies were carried out, since 2010 the number of quantitative studies to allocate the knowledge gained has also increased (Schaltegger et al, 2011). For example, Pondeville, Swaen and Rongé (2013) as well as Christ and Burritt (2013) investigated factors influencing the development of environmental management control systems in corporate practice.

Despite the huge number of scientific publications, green controlling seems to be a topic that is still almost unrecognised in practice. One possible reason for this is that only a few conceptual contributions, such as those by Bennett, Schaltegger and Zvezdov, address the challenges of green controlling in practice and show how companies can successfully tackle them. In 2010, the ICV took up the topic of greening and since then has been trying to discuss its relevance and practical solutions in its role as a pioneer thinker (Berlin and Stehle, 2015; Steinke et al, 2016). In their second cross-national study from 2016, they looked back on the development of green controlling over the past five years. In the survey of more than 150 large and medium-sized companies, they found out that, controversial to the usual theoretical view, the implementation of green controlling is ascribed not so much to the area of responsibility of controlling, but rather primarily to management and environmental management as a staff unit (Steinke et al, 2014). The areas of finance, accounting and controlling are sometimes even regarded as a hindrance to the ecologically sustainable orientation of a company (Steinke et al, 2014). According to the investigations of the ICV Study 2016, the reasons for this are the lack of drive and ignorance on the part of the controlling department as well as the desire of the management to do without the integration of controlling (supplementary). Further hurdles are the lack of time capacities in Controlling as well as barriers between the functions implied by the organisational plan (Steinke et al, 2016).

Assuming that the studies in question regard environmental management as a practical function carrier, Horváth, Isensee and Michel continue to point out that environmental management is currently undergoing a change to an "inherent cross-cutting task", i. e. that each unit within the value-added chain should make a corresponding contribution and behave ecologically (Horváth et al, 2012). Similarly, the responsibility of ecological sustainability will no longer be bundled in the individual institution of environmental management and thus few people in the future, but will be institutionally anchored as "shared responsibility between corporate controlling and sustainability management" in analogy to the ICV Study 2016, so that a change in practice towards the theoretical view is forecast here (Steinke et al, 2016).

The auditing firm EY researched the current situation and the development of sustainable corporate governance in German medium-sized businesses less specifically from the perspective of controlling and more from the perspective of management. Due to the close integration of controlling and management, which has already been explained, the two studies published in 2007 and 2012 (Englisch, 2012) nevertheless confirm a certain degree of relevance for the subject area of green controlling in SMEs. EY examined the companies with regard to their understanding and anchoring of sustainable corporate management by, among other things, asking them about thematic priorities, management systems, responsibilities, concrete measures and the communication of sustainability. With regard to ecological sustainability aspects, the study from 2012 concluded in particular that companies are pursuing measures in the areas of recycling, waste management and building management. In addition, the companies also indicated actions for the responsible use of water, the reduction of CO₂ emissions, and the selection of transport routes according to environmentally friendly criteria, environmentally friendly vehicle fleets and the use of alternative energy sources in the survey. Another finding of the study was that 40 % of the companies surveyed had an ecological balance sheet and about 30 % were certified according to ISO 14001 (Englisch et al, 2012). As with the above-mentioned scientific publications, EY's two studies have to be attested to an insufficient accuracy of fit for the research field of green controlling. Also the lack of topicality, after all, the publication of the last study is already 5 years ago, can be critically noted at this point.

Despite the increasing number of practice-relevant publications, no study to date reveals the current status of green controlling in German SMEs. Practical examples such as those from Hallay and Pfriem or Schaltegger and Sturm emerged long before the green development of controlling processes and instruments and are now only of limited significance, not least due to other current conditions. The ICV also recognised in 2015 that there is currently no representative study on the implementation of green controlling in Germany. Although their most recent study contains predominantly German companies, this is a first starting point for the current design of green controlling.

RESEARCH QUESTIONS AND RESEARCH DESIGN

The primary objective of this work is therefore to determine the status quo of green controlling in SMEs by means of a qualitative analysis. The questions in which institutions and at which company levels ecological aspects are anchored in the company or whether a predominantly action-oriented approach is pursued are to be answered. This is to be accompanied by the opportunity that companies are hoping to exploit in dealing with green issues. In doing so, the work places special emphasis on the opportunities that arise especially for the SME type of company. In addition, the present and future challenges in dealing with this topic will be explored, as well as the perspective of ecological

sustainability aspects in general and environmental controlling in medium-sized companies. The aim of the work is therefore to answer the following research questions and to derive recommendations for action:

- Current status: How is green controlling currently used in SMEs?
- Challenges: What are the challenges facing SMEs?
- Perspectives: Which developments will green controlling in SMEs take?
- Recommendations for action: Which recommendations can be derived from this?

One method of doing qualitative studies is to conduct an expert interview in the form of a guideline, so-called semi-structured interviews, as in the study presented here. The aim of this is to obtain a broad spectrum of answers to selected topics by answering questions that are as open as possible. Ideally, in the subsequent analysis, correlations can be identified without having guided the interviewees in a specific direction by means of possible answers, so that the best possible objectivity is guaranteed.

In order to be able to achieve good results the target group of the companies surveyed was limited to medium-sized companies that have already become active in the field of sustainability. The aim of this limitation was to ensure that targeted information could be collected in the conducted expert interviews to answer the research questions. For this reason, the Chamber of Commerce and Industry (IHK) of the Northern Black Forest was contacted in a first step and they provided 20 contacts. Another source for the potential expert surveys was the Baden-Württemberg Environmental Award, in which 229 companies have so far been shortlisted or have already been awarded with this award. Consequently, the total number of potential companies, i. e. without any further restrictions imposed by the researchers, amounted to 249. Finally eight interviews could be conducted.

FINDINGS AND OUTLOOK

According to the results of the present study, the origin of the ecological sustainability work can in many cases be traced back to a personal interest of the owners. In addition to management, the shareholders are also extremely important in the further course of events, i. e. both during planning and implementation, in order to enable a consistent top-down approach. It is often the case that the same person in a medium-sized business holds management and ownership. This can prove to be strength, especially against the background of the principal-agent problem. Furthermore, the qualitative content analysis of the expert interviews showed that a consistent establishment of ecological sustainability aspects requires a considerable amount of time, since all the companies examined have been working on this topic for more than a decade. Based on the findings of the study, it is possible to formulate a recommendation for small and medium-sized businesses, especially in

view of the expected increasing relevance of the topic, to deal with the topic at an early stage and to quickly take the first steps in the right direction.

We have to state clearly that this work is not a plea for a complete turning away from the basic economic idea of making profits. Rather, it shows an approach to the long-term integration of ecological sustainability aspects into the strategies of medium-sized companies. Another central statement of the interviewed companies was the fact that ecological goals can certainly stand above economic goals in the short and medium term, but that the securing the company's existence remains the top priority in the long term. The pillars of sustainability (economic, ecologic and social aspects) also make it clear that companies should consider all areas of sustainability in their day-to-day business as well as in strategic management decisions. As we learned in the expert interviews, this is already being put into practice in some cases. None of the medium-sized companies surveyed considered one of the pillars detached from the others. On the contrary, both social and ecological aspects must be perceived and anchored as drivers of economic efficiency. In this way, the company can create a long-lasting, robust and resistant (building) substance in order to once again take up the supporting pillars of sustainability in visual terms. To ensure that this state of affairs does not remain a snapshot, but makes a lasting contribution to the long-term success and survival of the company, continuous efforts are required. The establishment and permanent integration of green controlling can thus contribute to the expansion of existing competitive advantages and the creation of new potential for success. According to the findings of this work, the controllers as (green) business partners of the management could assume an (even more) active role as coordinators of the areas involved in sustainability issues of the company. In this way, they could make a significant contribution to enabling the effective and efficient achievement of strategic corporate goals by optimising the use of available resources. According to the findings of this study, a challenge and an opportunity can be deduced from the outsider role played by the Controlling department to date. A further opportunity for the further development of green controlling in SMEs is emerging from the megatrend of digitisation, the increasing importance of which can also have complementary or positive effects for SMEs on the integration of controlling.

The delta between the status quo found in the companies surveyed and the prospects for the future makes it clear that ecological sustainability work in SMEs is undergoing a considerable process of change. The accompanying change in green controlling discovered in the course of this work could have far-reaching effects on the future institutional anchoring and the role of controlling, which is to be understood as a central insight for the perspective of green controlling in small and medium-sized enterprises. Although the direct benefit of this work is limited in particular by the limited depth of

analysis, it provides some indications as to the potential of this research field in the border area between corporate environmental management and controlling in the future.

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CHINESE FOREIGN DIRECT INVESTMENTS IN GERMANY: FINDINGS OF AN EMPIRICAL STUDY

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ABSTRACT

Chinese Foreign Direct Investments in Germany have been discussed controversially in German Mass Media. Based on the analysis of previous studies and literature review this paper attempts to gain an insight-view on the real situation in German companies after a takeover by a Chinese investor. The lead research question is: „What impact does Chinese direct investment have on company-specific factors and the development of the German investment object?“ A qualitative approach is applied by conducting expert interviews in companies concerned. The results are interesting and promising too, all companies have described their previous cooperation with the Chinese investor as positive and a win-win situation and expect it to continue in the future.

Keywords: FDI, China, Germany, M&A

INTRODUCTION

Headlines in the German press nowadays could give the impression that China is pursuing a kind of conquest strategy of the German economy (e.g. Welt, 2017; Manager Magazin, 2013). Takeovers such as those of the German robot manufacturer KUKA or the Bosch Starter Division by Chinese companies have recently generated considerable media interest in business, politics and society (Manager Magazin, 2017). Europeans are increasingly seeing their economic family silver flogged to Asia. Discussions are also being held in political circles not only in the USA as to whether and, if so, how forward-looking technologies or sectors of increased interest for internal security or similar things should and must be protected from being sold out to China. After all, many Chinese companies are suspected of buying up foreign companies only on the basis of their know-how (Zeit, 2017). From the point of view of the employee circles and employee representatives, there are always fears of emigrating jobs, or even of whole sites or company closures, as soon as the know-how has been transferred to the Far East. In addition, many attest to the Chinese a methodical approach that follows a state-initiated plan (Welt, 2017). There seems to be a common fear that the Chinese acquisition waves will increasingly undermine the German economy and that Germany could lose its competitive advantage "knowledge" to Chinese competition. However, most of the discussions are confined to the

possible economic effects of this "takeover wave". However, the impact of a Chinese direct investment on the affected companies has so far only been addressed and discussed in a few studies.

OBJECTIVES

Consequently, this paper is intended to provide an answer to the question of how Chinese direct investment affects company-specific factors and the development of the German investment object.

The few studies that have so far dealt with this topic at the corporate level have different structures (e. g. Golinski et al, 2016; Jungbluth, 2014; Bollhorn, 2015; Emons, 2015; Britzelmaier et al, 2017). Some based on qualitative approaches, others on quantitative approaches or a mixed approach, while others only discussed individual examples. Moreover, the same topics were rarely addressed by several studies. In addition, the studies show a heterogeneous field of results and there are obviously contradictions between the studies. Finally, the age of some publications can be seen as a problem, since the form and expression of the effects may have changed in the meantime. Building on these facts, our paper aims to review, update and refine the previous theses and results of the published studies. Furthermore, contradictions should be eliminated as far as possible in order to provide potential target groups with a basis for further research or decisions. In addition, the main objective is to identify and illustrate inductive factors, which have not been included in any of the studies so far, in order to be able to discuss possible new areas of impact.

LITERATURE REVIEW

Today, China is one of the world's largest economies, due to the wonder of growth it has experienced over the past four decades (Zhang and Chang, 2016). The average annual GDP (gross domestic product) growth rate between 1978 and 2015 was 9.72%. If one compares this with the global growth rate of 2.84%, it becomes clear how rapidly the Chinese economy has developed (UNCTAD, 2017).

China's joining the World Trade Organisation (WTO) and the announcement of the "Going Global" policy in 2001 have drastically changed the Chinese business world and had a decisive influence on the development of IFDI and OFDI.

In the tenth 5-year plan, the "Going Global" project was established and incentives were created to increase the OFDI flow of certain industries. In particular, activities supporting the export of Chinese raw materials, parts and machinery in heavy industry, such as textiles, machinery and electronic equipment in light industry should be rewarded with export tax rebates, direct financial assistance and foreign currency support (Buckley, 2010).

The flow of Chinese outward foreign direct investment has developed rapidly in the period following WTO membership. The annual OFDI flow has risen from USD 0.45 billion in 1986 to USD 132 billion

in 2015. China ranks third in terms of annual outflow of direct investment worldwide after the USA and Japan (UNCTAD, 2017). According to estimates by the Mercator Institute for China Studies (MERICS) and the Rhodium Group, the OFDI flow approached USD 200 billion in 2016 and has once again made a significant leap forward (Hanemann and Huotari, 2017).

The first registered investment from China in Germany was recorded in 1995 (Schwarzer and Zuberer, 2016). In recent years, the business activities of Chinese investors in the EU have grown sharply. Germany, as one of the main target countries for Chinese investments, has recently experienced a strong wave of takeovers by companies from China. Despite the continued slowdown in economic growth since 2013, this does not deter the Chinese from making further investments (Otto and Heck, 2015). In 2016 alone, company takeovers in Germany increased by 74 % to a total of 68 acquisitions. Measured in terms of the number of transactions, Germany displaced Great Britain (47) for the first time from the first place of Chinese OFDIs. By 2015, there were still 40 transactions in Germany (Kron and Sun, 2017).

The available previous studies dealing with Chinese direct investment in Germany or Europe have been conducted using both quantitative and/or qualitative research approaches. In applying the quantitative research approach, secondary data was frequently used and analysed. The studies by Emons (2015) and Jungbluth (2016) refer to statistics from the Ministry of Commerce of the People's Republic of China (MOFCOM) or to figures from the United Nations Conference on Trade and Development (UNCTAD), but mostly in combination. It should be noted here that data from both institutions on the same aspects, such as the investment volumes of Chinese companies in Europe or Germany, the number of transactions, etc., differ greatly in some cases.

The existing studies must be separated into general and company-specific effects. Hanemann and Huotari (2017), for example, from the Mercator Institute for China Studies (MERICS) and the Rhodium Group, dealt with the general development. Among other things, they investigated the investment volume of Chinese companies in Germany and Europe, the investment targets and the preferred sectors of Chinese investors (Hanemann and Huotari, 2017). Their studies disregarded company-specific effects. Various management consulting and auditing companies such as EY or PWC also analysed the development of the investment volume with regard to Chinese companies in Europe and Germany, e.g. Kron and Sun (2017) or Otto (2013)

Other important studies on this subject are the ones of Sohn et al (2009), Britzelmaier et al (2017), Knoerich (2010), Bollhorn (2015) and the meta-study by Franz et al (2016).

RESEARCH QUESTIONS AND RESEARCH DESIGN

Based on the research results of existing studies and literature, various research gaps could be determined and the need for further in-depth research was identified. In total, ten studies (two of the ten are taken from a collective work) could be identified, which dealt more closely with the effects of Chinese direct investments on a company-specific level. Further studies have addressed on the macroeconomic impact of investments in China. Since this work focuses on the effect on individual German companies, the results of these studies were omitted.

The empirical studies analysed on Chinese direct investments in Germany show that several different insights have already been found in various thematic aspects. From these, six different categories (Management, company structure, employees, company culture, financial aspects, synergies) could be derived, in which the majority of these studies focused on. However, it became clear that not every publication covered all categories. In addition, there are significant differences in the depth with which certain aspects of the topic were dealt with. The studies examined here showed that some of the results are already relatively out-dated and may no longer reflect current reality. If one were to focus only on studies that are not older than five years, for example, the number of existing studies would be significantly reduced. This shows that, in this respect, there is a further need for additional studies to be carried out in order to highlight the relevance of this issue. Although only a small number of studies on this subject have been carried out so far, it has been possible to establish that there are sometimes considerable contradictions between the research results analysed. There is therefore a specific research gap in this respect, since certain findings cannot be based on a broad basis. Furthermore, it cannot be ruled out that the categories analysed so far, which were derived from the studies and on which effects could be determined, are definitive. In this respect, this may mean that there is a research gap in that no other factors have been identified or taken into account to date.

In summary, it can be said that studies published to date on the effects of Chinese direct investment in Germany have not yet made it possible to build a kind of theory upon it as to how they affected German companies. The low number of studies, with results that are sometimes controversial and out-of-date, and the lack of depth with which certain aspects were analysed, make this much more difficult.

Out of study's and literature review the following research question was conceived:

What impact does Chinese direct investment have on company-specific factors and the development of the German investment object?

The main objective of this research work is to find an answer to this research question and to close existing research gaps as a secondary objective. The aim is to find out whether the prevailing opinions and points of criticism, as well as the findings of other studies, are correct and whether Chinese direct

investment is dangerous or rather beneficial for German companies. The results of this elaboration can be useful for various target groups. For example, companies should then be able to form a neutral picture of whether they want to consider a Chinese investor. Politicians could then be able to decide whether more restrictions would be recommendable for Chinese investors or whether it would be advantageous to further liberalise existing laws. On the one hand, this work aims to bring current research findings up to date.

One method of doing qualitative studies is to conduct an expert interview in the form of a guideline, so-called semi-structured interviews, as in the study presented here. The aim of this is to obtain a broad spectrum of answers to selected topics by answering questions that are as open as possible. Ideally, in the subsequent analysis, correlations can be identified without having guided the interviewees in a specific direction by means of possible answers, so that the best possible objectivity is guaranteed.

Out of existing studies and literature a category-based interview-guideline was developed and tested. Target companies were identified and contacted. Eight interviews could be conducted. Out of the analysis of the transcripts findings could be derived.

FINDINGS

The most important findings could be derived in the categories „management“, „company structure“, „employees“, „company culture“, „finance“ and „synergies“.

Contrary to the findings of previous studies, an exchange of **management** is not uncommon as a result of the takeover. The introduction of a dual management system, consisting of a Chinese and a German managing director, is also common practice. As far as the decision-making power is concerned, it has been shown that this remains to a large extent within the German company, both operationally and strategically, which is often due to a solid basis of trust or depends on the company's results. In the case of strategic decisions, however, investors are more likely to interfere, but only in the form of coordination and exchange.

In terms of **company structure** the aspect of location and job security was looked at in more detail and it became clear that most companies have either a direct (contract) or indirect protection, the latter predominating. An indirect safeguarding of the location is assumed by the investor's investments in the German location, since a rational behaving investor would not voluntarily invest money to close the location afterwards. In the course of this process, it was also found that the majority of Chinese investors are investing in expansion or modernization projects.

On the one hand, it turned out that the number of **employees** in the acquired companies tended to increase over the long term. On the other hand, it was discovered that as a rule there are no salary changes, but that there is still an orientation towards current industrial or standard wages.

Cultural conspicuities were generally determined, which arise due to different understandings or opinions. The indirect expression of the Chinese poses a particular problem, which can lead to the loss of face of the other person in case of disregard. Image effects are another soft factor. Here, it was possible to observe changes in the behaviour of various interest groups of the German company as a result of the Chinese takeover, which are often only of a short-term nature. These include, on the one hand, negative image effects such as employee fears about job losses or customer fears about poorer product quality. On the other hand, positive effects, such as an increase in the number of applicants or the rescue of the location could be recognised.

Financial parameters are another issue. It turned out that almost all companies experienced an improvement in their economic situation and corporate success. There could be a possible connection with the financial support that the majority of companies receive from the Chinese investor. On the whole, access to external funding, such as bank loans or promotional funds, seems to be worsening, as external lenders still often have reservations about Chinese investors. A new point gained from the survey material is the outflow of liquidity to China, e.g. in the form of dividends. However, no trend could be established on this point, as an outflow of liquidity could not be detected for some companies.

Synergies resulting from the acquisition were investigated. It was found that the Chinese investor extended access to the Chinese market, but also in part to international markets. As a result of the larger sales market, companies will be able to obtain a better order situation and capacity utilization and will also be able to position themselves better in general. In addition to the sales market, synergies could also be identified in the procurement market. For example, a large number of companies gain access to the Chinese procurement market with the help of the investor. Cost advantages resulting from lower purchase prices can improve the competitiveness of companies. Synergies can also be observed in the area of know-how exchange, as some German companies benefit from an inflow of knowledge and technology from China. This is contrary to the general fear that Chinese investors only want to transfer know-how and technologies to China. An actual loss of know-how could only be ascertained in a few companies and if so, this was not regarded as negative. What is closely linked to the above-mentioned increase in knowledge from China is an increase in innovation capacity. This was found in a large part of the companies and resulted from increased expenditures and investments in R&D, which are supported by the investor. The capacity for innovation has not yet been examined in any studies. Nor was there any mention of a change in the product portfolio. The survey showed

that the majority of the companies in the majority of the survey showed that the Chinese takeover led to a change in their product portfolio, mostly in the form of an expansion or broadening of the portfolio.

The assumption or fear circulating in media and political circles that Chinese takeovers only lead to a know-how drain, a reduction of jobs or the complete closure of locations could not be determined in this study. On the contrary, if you look at all the effects and findings, you can see that the positive aspects clearly outweigh the negative aspects and that the companies were able to benefit from the Chinese takeover. The result was a better economic and strategic positioning and a favourable starting position for future development. It is therefore not surprising that all companies have described their previous cooperation with the Chinese investor as positive and a win-win situation and expect it to continue in the future.

CONCLUSIONS AND OUTLOOK

Our investigation revealed a picture that differed greatly from the reports of many media. The small number of interviews certainly does not lead to a representativeness of the results, but gives a first well-founded insight into the affected companies. A larger number of companies could be surveyed for further insights. The results of a broader qualitative investigation could then lead to a qualitative investigation that could falsify or verify the obtained findings in a statistically valid way. It would also be interesting to carry out country comparisons.

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THE PURSUIT OF THE COMPETITIVE DIMENSION OF CREDIT COOPERATIVE BANKS

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ABSTRACT

The aim of this paper is to investigate the competitive capacities of cooperative lending banks that are attributable essentially to the human capital dimension. Emphasizing the importance of human capital in the economies of businesses, local or global, as "suppliers" of knowledge and of the ability to use process and product technologies, means, in our opinion, offering a new perspective from which to observe the dimension of the company. The study starts from these observation; the reinterpretation of the size concept, in the face of both profound changes in reality and new concepts of globalization, complexity and turbulence, is dealt with in our research according to a new analytical perspective, that of the "subjective" path in the study of the corporate-size phenomenon. The present work can be considered a position paper of a wider research project aimed at assessing whether the competitive advantages of the Credit Cooperative Banks (CCBs) - in an increasingly global market, regulated and subject to strong competitive pressures - can be sought in intangible advantages and, again, if they can find some justification in the pursuit of increases in production capacity.

Keywords. Cooperative Credit Banks – Size – Knowledge - Human Capital

1. INTRODUCTION

The competitive and environmental context, the theater of decisions and complex corporate behavior, lends itself to analysis of undoubted interest. The dynamics that are progressively characterizing the markets and the continuous pursuance by companies of behaviors that achieve, maintain, restore or improve their economic, financial and balance conditions require careful evaluation (Artis and

Hoffmann, 2008; Calomiris and Neal, 2013). The increased environmental turbulence and the greater internal complexity echoes, in fact, a variety of strategic choices that lend themselves to a not simple or univocal interpretation. On the basis of these premises, our objective is to investigate the competitive capabilities of credit cooperative banks (CCBs) that can essentially be traced back to the human capital dimension. It is obvious that the interest of economic-business studies on this issue is not new; there are, however, few studies referring to the banking sector.

Moreover, the choice of investigating cooperative credit banks arises from the awareness of the enormous weight that these hold in the Italian, French and German banking markets (EACB 2016). The size indicates the weight of each company on the market; consequently, we pose the question of whether knowledge, as a strategic resource for any company to be present on the market, can influence its dynamics and future development. The emphasis on human capital, which generates business knowledge, has led to the identification of the distinctive element of each company in this resource. The company dimension can, then, according to our hypothesis, be adequately interpreted if it refers to the individuals that produce knowledge at every level in the company. The reinterpretation of the size concept, in the face of profound changes in reality and in the new concepts of globalization, complexity or turbulence that have occupied considerable space in the literature, has necessarily been perceived and dealt with in a new analytical perspective.

First of all, it seemed to us that the theme of size is still important, which has assumed quite specific characteristics, accentuating aspects already present and highlighted in the past in the literature (Cavalieri, 1990; Marchini, 1995; Donckels and Miettinen, 1997; Paolini and Cerruti, 2009; Coad, 2010). The study of the company size can no longer be exempted, in fact, from the consideration of elements that are both important and delicate when the company is trying to position itself in a global market or to strengthen its position in the local area by exploiting intangible advantages, including cognitive advantage, which give rise to broad spectrum of competitive advantages (Hartley and Lauster, 2010). Starting from these observations, our aim was to find the most opportune perspective for observing CCB size, that referring to human capital. Few studies have adopted an observation perspective centred on the "individuals" that produce and acquire information and the effects of the knowledge thus generated on the size development traits.

Hence our research idea: to investigate the contribution of human capital to the process of size growth, recommended by the Supervisory Authorities; a role, that of human capital, made even more meaningful by the current trend towards "market de-territoriality". (Chomsky and Dieterich, 1997). In according to Grandinetti and Rullani (Grandinetti and Rullani, 1996), human capital can not only be

considered the lever for the competition of local and global markets but can itself also become the main reason for globalization (Caselli, 1997).

From a methodological point of view, the analysis of intangible assets is well suited to favouring a "subjective" approach to the study of the phenomenon investigated. (Finkelstein *et al.*, 2009; Helfat and Peteraf, 2014). The CCBs size must significantly express the features of the time phenomenon which is the company; this concept must therefore be extended to the causes of the life manifestations of companies and the effects of the recovery of intangible economies.

Some Authors (Emery *et al.*, 1994; Feng *et al.*, 2009) have shown how companies can be different even if the production capacity is identical; the conscious role of the cognitive knowledge asset therefore needs to be carefully observed.

The practical addresses and guidelines presented in the paper are the result of theoretical studies, empirical research and field surveys. The scientific contribution thus becomes an instrument able to provide useful food for thought to the scientific community and to the world of companies and banks, with reference to the competitive dimension of the CCBs, decorrelated by the purely quantitative aspect.

2. RESEARCH QUESTIONS, SOURCES AND STRUCTURE

The present work can be considered a position paper of a wider research project aimed at assessing whether the competitive advantages of the CCBs - in an increasingly global market, regulated and subject to strong competitive pressures - can be sought in intangible advantages and, again, if they can find some justification in the pursuit of increases in production capacity

The research focuses on the main effects that a redefinition of the (local or global) size of the markets implies on the interpretation of the company dimension. Training and the availability of human capital is the most important and essential specific resource for the development of local banks in that it can enable them to take advantage of globalization and for global companies to immerse themselves in socio-cultural contexts that are profoundly different from those of the country of origin (Vaccà, 1997). Hence the consideration of the profound meaning of the human resource that is translated into the analysis of what makes this resource central for both local and global businesses, and therefore a new perspective from which to observe the company dimension. (Vaccà, 1997).

The paper can be within the body of financial strategy studies and of resources intangible (Emery *et al.*, 1994; Feng *et al.*, 2009; Caselli, 1997). According to Caselli (1997), every change determine a significant impact on the information flows required and consequently on the structure of data base informative. The interpretation of data and the transmission of information within the business unit thus contributes, in the last step, to strengthening customer relationships which, in one way or another, leads to an increase in the bank's production capacity (Stefancic, 2011).

By information, we have seen, was meant the face of knowledge referring to concrete facts which have therefore a "local" and contingent nature: the dimension of the information assets available to companies is linked, as can easy be understood, as a first approximation, to company organization and to the specific characteristics of the markets (Chari and Henry, 2008); the information in the different phases of the evolution of the markets has been the means available to the organization to deal with the complexity manifested by them. The problem of information, a producible resource, and that of dimension, therefore, find their natural intersection at the point where environmental complexity is emphasised. In particular, the recovery of important economies (of information) through dimensional changes leads to the prioritising of "greater size" so that the production and use of this resource can be more efficient.

Local banks, in the sense of intermediaries with an operating dimension limited to a given area, turn to their advantage, with respect to large size, their roots in a given area and their considerable knowledge of the clientele. However, the need for them to combine dynamically the "efficiency - localism" duality in maintaining competitive positions in the market system, needs to be reinterpreted in the light of changes in the markets. The predictable complexity of a global market cannot be fought against or faced by changes in size in the sense of a simple quantitative variable (Arrighi and Silver, 2003; Helpman, 2011). Rather, local banks aware of their privileged position with regard to information should be responsive to banks by exploiting, among other things, even size changes, that is, uncompetitive relationships with other local banks (Stefancic, 2010; 2011; Perulli, 2009).

The research questions that the study will try to answer are the following:

1. Can information be understood as the side of knowledge referred to concrete facts therefore with local and contingent nature?
2. Can "knowledge" influence the dynamics and dimensional development of a territorial vocation banks?
3. Can human capital then be considered a lever for the competition of CCBs in the local markets?

The sources used are of a both primary and secondary type. The primary sources used are the principle and the documents released by the European Association of Co-operative Banks (EACB

2016) the European Banking Authority (EBA, 2016) and Bank of Italy (Banca d'Italia, 2016, 2017). The secondary sources are the main national and international literature.

Based on these premises, the work is structured as follows. Paragraph 3 provides a review of the existing literature regarding the topic of the human capital in the research of optimal bank size into the competitive market; Paragraph 4 identifies the main changes that will be determined by the research of competitive size of CCBs in local market, while the concluding remarks, and future developments will be presented in the final Paragraph.

3 . LITERATURE REVIEW AND BACKGROUND

Size represents one global and complex characteristic of business management, while its regulatory content could be found significantly in the local characteristics of banking management. Limited banking size, identifiable as a circumscribed local phenomenon, initially constitutes the prerequisite for a closer link to the area of operation and enhances the "local" vocation of local banks, redefining the link between the banking and operating dimensions, that is, between the small bank and the local bank. The link between the local bank and the local business area tends to focus on the needs of the development of small businesses and the financial maturity of families, thus significantly representing the needs of a privileged interlocutor. The structure of the financing of companies is evidently closely linked to that of investments and therefore to the capacity for economic growth. Support for company investment and, even more important, the careful evaluation of the new and ever-changing needs mean that the dynamism of local banks, the result of a cultural leap in "the approach to banking", is indispensable (Perulli, 2009; Stefancic, 2011; Barbagallo, 2015).

It is undeniable that the spread of financial innovations is also linked to the stimuli provided by small and medium-sized companies, and therefore from the knowledge and culture that distinguish them; the removal of these barriers is also the responsibility of local banks, whose role, no longer restricted to adapting with traditional tools to the needs of local companies, must also be reflected in the provision of services and information to its customers, benefiting from their existing links with them. In this way, local banks, in carrying out the typical banking functions will perform the role of vehicle for the development of the economy in which they operate, as primary links in financing chain. The "localness" under discussion is not, therefore, necessarily linked to smaller size, but rather to the strong relationship of dependence between the bank itself and the economic system in which it is established. This link, it was said, is immediately perceptible from the composition of balance sheet assets characterized by loans to local manufacturing companies and by financial investments to the advantage of intermediaries operating in the same area; in addition, it is strengthened by local management placed at the helm of the bank as well as by the composition of the staff and by the

ownership structures characterized by a high degree of local representation (Perulli, 2009; Stefancic, 2011; Barbagallo, 2015).

The data provided by the EACB give us an extremely interesting and objective overview of the presence and competitive dimension of the BCC. The importance of this banking institution, referring to 2016 data, is particularly marked in France, with Crédit Agricole, Crédit Mutuel, and subsequently in Germany with BVR (Bundesverband der Deutschen Volksbanken und Raiffeisenbanken), which hold deposits of 991,935 million for France and 739,218 million for Germany. Followed by Holland with Rabobank, with 593 million euro, England with the Building Societies Association (335,386million), Austria with Österreichische Raiffeisenbanken (182,316 million) and Österreichischer Volksbanken (22.342 million) totalling 204.658 million euro of customerdeposits. Italy, has sixth place in this classification with Federcasse (161.800 million), followed by Spain with Unión Nacional de Cooperativas de Crédito (70,469 million) and Banco de Crédito Cooperativo (31,895 million). In relation to the level of debt in the world of European cooperative credit, the country that operates prevalently with capital that is not its own is Spain with a total of 14.1%, of which 8.1% of Unión Nacional de Cooperativas de Crédito and 6.0% belonging to Banco de Crédito Cooperativo (BCC). Followed by France with a total leverage ratio¹⁷⁸ of 11.9%, Italy with 11.7% and the countries of North-Eastern Europe, Poland (9.7%), Lithuania and Bulgaria (8.20%). With reference to cost/income ratio values. The European country that has the highest value is Denmark with 41.9% by the Danish Nykredit, followed by Cyprus (43.9%), Finland (53.0%), the English Building Societies Association (57%), Lithuania (57.5%) and the Italian Federcasse (59.2%), with a value on average lower than the rest of Europe. In relation to the total capital ratio, among the most solid BCC in Europe there is France (36.6%), then Austria with the Österreichische Raiffeisenbanken where a tier 1 ratio of 9.3% is considered in the analysis and the Austrian Österreichischer Volksbanken with 15.4%. Among the cooperative banking institutions then, the countries of Northern Europe: Denmark with 23%, Holland with 23.2% and Finland with 22.9%.

The unquestionable centrality in the peripheral financial circuits (King and Levine, 1993; Carlin and Mayer, 2003; Rousseau and Sylla, 2003; Beck and Levine, 2004; Berger *et al.*, 2004), which allows local banks to provide the maximum impulse to entrepreneurial initiatives operating in the area of establishment through the mediation of local resources, is founded on and is consolidated thanks to the knowledge acquired over the years, to the awareness of the level of integration existing between businesses and the local area and, last but not least, to the close relationship with their local markets.

This last consideration, however, requires reflection, since the processes of globalization, financial innovation and market integration could lead to a reappraisal of the concept of the local market (Flores, 2005; Beck, 2005; Sennet, 2006). The global market has very precise characteristics that need to

be interpreted and is not, therefore, the product of the peculiarities of national markets, but rather, given the evidence for its peculiarities, the complex expression of the competition in which all national markets participate or to which they are subject (Cavalieri, 1990; Giaccardi and Magatti, 2002). In the global economy there are national, local, company and individual differences which cannot be reduced to uniformity; in the debate, however, we can not overlook the position of those who see in the processes of globalization the generalization of a dominant cultural and economic model, with the consequent standardization of local economies. The socio-cultural and industrial political values internalized in the production processes differentiate the corporate functions even when the goods and services are equivalent for each area of the global economy. The existence of these differences, as we will see in the continuation of this paper, cannot be overlooked either by local companies or by global companies. The current economic context has directed attention onto the genesis of global competition, that is, onto the effects of globalization on “local” competition.

In particular, the drive towards globalization has opened up the field to interpretive models of global companies that include the strategic approach dating back to Ohmae (1990) and Porter (1991) for whom a global company or one that aspires to become such is obliged to take into account the complexity and intensity of global competition. The strategic approach shared by the two scholars, regardless of the conclusions they reach, has raised widespread interest and brought about a heated debate about the forces that must be contemplated in the context of global competition.

In a global competition regime, according to Porter and Kramer (2011), the strategic actions of a company in a national market are not independent of those undertaken in the other markets in which the company operates. Unlike Ohmae (1990), for whom the customer is central to the strategy of the global enterprise and supply capacity has to be adapted his/her needs, Porter and Kramer (2011) assert that a global strategy is successful when the competitive advantage created within the market home is effectively and efficiently integrated into an international dimension: the competitive positions of companies can be determined, ultimately, by the local conditions of competition or by the interrelation of international competitive situations. The forces that drive globalization do not in any way cancel out the values that can be developed at the local level; on the contrary, local values projected into a global dimension can provide important elements of differentiation for companies in which a correct matching is achieved between the variously distributed needs and their managerial, financial, technological and commercial skills (Guatri, 1990). It is obvious that the transition towards globalization has effects both on companies oriented towards a dynamic international competition, but also on traditionally domestic companies (Ghedini, 1991).

The problem is particularly delicate for those companies that operate or intend to operate on a global market: for them, in fact, the excessively widespread exercise of government lead to tardive and

incisive actions (Perulli, 2009). However, in the face of the changes that are taking place, the qualities of corporate governance are essential for successfully managing changes: the qualities are, of course, rooted in broad and different cultural models: cultural pluralism and the specifics of local values must be recognized and exploited in such a way as to consolidate local production processes or allow progressive penetration into the areas of the global economy (Kumar *et al.*, 1999; Sull, 2009; Rigby and Vishwanath, 2006; Barbagallo, 2016).

4. ON THE COMPETITIVE DIMENSION OF CREDIT COOPERATIVE BANKS (CCBS)

Environmental changes require a review of the way in which the bank pursues its objective of integration within the socio-economic context in which it operates, still benefiting from consolidated relationships with customers (Raggetti, 1983; Barbagallo, 2015). The widespread diffusion over a local area and the consolidated patrimony of relationships with customers are, undoubtedly, strong points, but no longer sufficient to guarantee adequate advantages within the reference markets: the new products and business areas must be complemented by the search for appropriate organizational solutions that make it possible to pursue the desired productive changes. The systematic evaluation of internal resources and the monitoring of environmental variables, by means of adequate information supports, are indispensable for the pursuit of corporate goals even in a smaller “local” market.

Local banks, even in the presence of imperfections associated with the so-called informational asymmetries for which the acquisition of soft information becomes difficult (Sabani, 1993; Galassi and Di Salvo, 1997), still manage to have privileged access to this type of information compared to non-local banks (Zou and Xiao, 2008); this because they can take advantage of the central position in the market, the continuous and constant presence on the market place, the lack of mobility of the staff and the strong bond with the local area, that is, by taking advantage of a set of factors from which is derived the favourable nature of customer relationships that they succeed in establishing (Cavalieri, 1987; Corigliano, 1991). Having roots in the territory, together with the characteristics assumed by the customer relationships (continuity and trust, exclusiveness of the relationship), allows them to acquire a considerable wealth of soft information and knowledge which places them in a privileged position with respect to large banks and favors them in the implementation of successful strategies (Castelli *et al.*, 1995; Quintiliani, 2016; Gibilaro and Piatti, 2012; Caselli, 2014). These resources, in the sense of knowledge of local affairs and variables over time, in order to be used at different times or in different places need to be developed in such a way as to enhance significantly their validity. The information available to local banks, then, could be abstracted through a language that summarizes the experience accumulated in the local context in a given period.

If, as we shall see later, the processes of globalization will lead to the coexistence of a generally global market and of generally local markets, local banks are destined to become stable and competent partners for small and medium-sized businesses, ensuring the link with the local economy and acting as a support for development. The needs of the global market and those of the local markets require, however, a review of the organizational and production structures of the banks in question to be pursued in multiple ways and choosing from them the one that best enhances and operational flexibility and makes it possible to offer the products that exist on the global market (Barbagallo, 2015; 2016).

The irrelevance of national boundaries has reduced the sense of the concept of dimension traditionally accepted in the literature referring to objective elements (downsizing); the new technologies, as well as favoring the reduction of the company size in the specified meaning, lead to a greater recourse to external resources (outsourcing), the attribution of powers to collaborators (empowerment), automation and organization of distance work (networking) (Brandolini, 1996). In this complex dialectic between company and market (Local or global) "management is the crossroads of company activity and decision-making" (Lepak *et al.*, 2007): the importance of decisions and strategic choices leads to considering all the stakeholders who have weight in carrying out the activity of governance (Parbonetti, 2006; Galeotti and Garzella, 2013; Filatotchev and Nakajima, 2014).

A redefinition of the (local or global) dimension of the markets ultimately implies an impact on the interpretation of the company dimension. Training and the availability of human capital is the most important and essential specific resource for the development of local businesses as it can take advantage of globalization and for global companies to immerse themselves in socio-cultural contexts that are profoundly different from those of the country of origin (Vaccà, 1997). Hence the consideration of the profound meaning of the human resource that is translated into the analysis of what makes this resource central for both local and global businesses, and therefore a new perspective from which to observe the company dimension. Ultimately, the only significant factor that can be used by companies of whatever type in their development and survival strategies, is "knowledge", which however can only be used through the intellectual and professional abilities in human work.

4.1. The cognitive approach in the globalization of markets

Knowledge, referring to an abstract and rarefied (virtual) context through an appropriate codification process, acquires a meaning that is comprehensible not only to those who have shared the experience, but to anyone who understands the code or language (semantic knowledge). However, the practical effectiveness of a branch of knowledge, i.e. the traceability of the information encoded in different contexts at different times, is only one, though fundamental, part of the construction of competitive advantage. For the remaining part, the ability to operate successfully in a market depends on an

unconscious process of adaptive learning that contains within it formal information stratified and developed by individual companies or business individuals, identifiable in the relationships that organize the context, the systems or social groups according to the services to be supplied to the outside (Ferraris Franceschi and Cavalieri, 2000). The importance of knowledge within the company has been amply highlighted by the doctrine (Teece, 1987; Quagli, 1995): the knowledge generated by a system of information relating to the company and to its relations with the players of the market and the environment is filtered by the personality of the individuals operating in the company and learned and sedimented by the organizational structure. The analysis of the meaning and role of the business factor "knowledge" can, then, be effectively carried out by observing its objective and subjective dimensions, the first in terms of the quantitatively and qualitatively available information and the second by considering the individuals working in the company and their ability to "incorporate" information and knowledge.

In this sense Quagli's definition (1995, p.15) seems particularly appropriate and exhaustive. According to it knowledge can be considered "a system of information, learned and distributed in the company in different ways and related to each other by functional links, such as to allow operators to interpret the various environmental and internal situations in a manner appropriate to the economic conditions of the production combination and consequently to orient their own judgments of convenience ". The centrality of knowledge within the system of intangible assets has been variously discussed by the doctrine in the literature and investigated by other scholars who have preceded us (Itami and Roehl, 1987; Vicars, 1989; Parr, 1992; Nonaka 1994; Corno, 1996; Ferrando *et al.*, 1998): the technical-industrial, commercial, managerial, financial and social assets are founded and interpreted, above all, on the basis of the knowledge possessed by individuals. The management conditions capture and accentuate the essence of the company in a global market, in our opinion so that, if they essentially revolve around knowledge, it is our belief that the characterization of the company today revolves around the individuals in the company.

The problem of knowledge management transcends the aims of this work. However, the analysis of this resource, considered also in its subjective aspect requires clarification. Studies with an emphasis on individuals such as owners and managers of resources are carried out in the knowledge that tacit and codified knowledge is first and foremost business knowledge: there exists individual knowledge which is the subject of economic-business analysis provided it is instrumental to the pursuit of the corporate purpose and characterizes individuals' criteria for choice. The individual knowledge explicated and used generically by the recipient-company can usefully lead to the orientation of the studies on aspects that are also subjective. Therefore, the link between information and knowledge, between objective and subjective approaches in the study of the intangible resource leads us to a new

reading of the aggregative behavior favored by many companies in a context directly or indirectly revolutionized by global trade. The development of formal knowledge by various individuals becomes the second important stage in the projection of the company in a global market or in the maintenance or strengthening of positions acquired in a local market. The awareness of the role of information and therefore of knowledge for companies is the first goal: the cultural and managerial distance referred to previously represent the first obstacle to competitiveness for companies. The attitude of companies should, in our opinion, be that of confronting and interacting on a global basis with a wide and differentiated range of productive forces in order to exploit opportunities that would otherwise be precluded and, therefore, of using and sedimenting information codified on a worldwide basis in order also to fortify the local circuit.

These considerations lead, in addition, to interpreting the process of globalization from a new perspective. Knowledge can, in fact, project the company and strengthen its position in a global market, or it can strengthen the positions acquired in a local market. The resource under discussion can be seen as the lever for the competition of local or global markets, but can itself become the main reason for globalization (Grandinetti and Rullani, 1996; Caselli, 1997). Only the process of globalization can guarantee the maximum range of information, that is, provide the maximum benefits deriving from the replication of information.

5. CONCLUSION REMARKS AND FUTURE DEVELOPMENTS

This work contributes to the debate over the research of competitive sizes in the banking industry, essentially related to human capital. However, the choice to investigate cooperative banks arises from the awareness of the enormous weight that these have in the Italian, French and German banking markets. The emphasis of work in progress paper is on the novelty of the work, not completeness.

We have focused on three main issues:

- a) the relevance of size that is still prominent in the scientific debate; however, in a global context, the neoclassical theory, aimed at the objective analysis of the company system, is inadequate for interpreting the evolutionary characters of the company;
- b) the role of information, understood the aspect of knowledge that refers to concrete facts and is therefore of a local and contingent nature;
- c) the concept of size in this interpretation refers to the information assets available to companies. In particular, the recovery of important (information) economies by means of size variations leads to the prioritizing of "greater size" in order for the production and use of this resource to be more efficient.

In fact, the explanation of the processes of globalization, dealt with from a cognitive perspective, has led to an emphasis on the evolution of relationships between companies without operational boundaries and stakeholders or to the strengthening of these relationships within circumscribed contexts for companies with a "local" vocation. The circulation of global knowledge also in local areas, thanks to the disruptive effect of the information systems, for example, has led to favouring discrimination between tendentially local companies or those of a markedly global nature, because the evolution towards the global circulation of information or the local specialization of these are not clearly separable. The cognitive approach adopted in the reading of globalization processes has left local spheres in which we see the circulation of the codified experiences of multinational origin and markets without boundaries, where local specificities are important in the process of transforming information into business knowledge.

Emphasizing the importance of human capital in the economies of local or global companies, as "suppliers" of knowledge and of the ability to use process and product technologies, means, in our opinion, offering a new perspective from which to observe the company size. Human resources, increasingly creative, diffused throughout the organization, able to produce information and able to contextualize the codified knowledge in local situations play a fundamental role in the local or global development of the company. Globally considered human capital gradually generates new business knowledge. This hypothesis has as an obvious consequence the analysis of the meaning and the dimension of human capital for the interpretation of the company dimension.

Finally, we have highlighted how this perspective leaves a problem open: the emphasis on the dimension of knowledge, therefore of intangible assets, opens the way to interpreting the problem of size in qualitative terms. In this sense, we have indicated how quantitative analysis can still play a supporting role in identifying the level of information disseminated in the company, as well as the degree of diffusion of technological innovation. However, the prevalence of qualitative aspects now suggests that the solution to the problem is acceptable provided the research method is scientifically correct. The impossibility of offering a quantitative solution to the interpretation of the size problem, not only does not invalidate the scientific nature of the research, but does not allow us opt for the classical (objective) approach in the study of the size problem, in that it is inadequate in the face of the upheavals that are affecting the internal and external conditions of the company.

We now come to some final reflections. The global scenario is undoubtedly characterized by peculiarities not found in the realities and markets considered singly and not detectable as a synthesis of local qualitative and quantitative traits. The identification and awareness of a completely new market that does not represent the sum of local markets, but in which national borders have lost significance, requires companies to find new ways of seeking competitive advantages. The same

corporate purpose also in a global space requires the formation and formulation of business strategies in view of non-local nature of the market de-territoriality.

We are therefore convinced that knowledge assets and intangible assets in general are not linked to any dimension of productive capacity. The large company like the small one is competitive in a global market regardless of the number of its employees or the amount of turnover. The global or local orientation of the production units imposes a parallel awareness of the competitive advantage that can be recovered in the cognitive advantage. Only when the concept of corporate size becomes a concept that is unrelated to any reference to objective elements can it congruently reflect the weight of companies in the markets.

The appropriate application of this in the delimitation of the field of investigation has emphasized the objective perspective according to normative purposes. However, only when dimension can be related to the human factor, and therefore to the skills and knowledge of individuals, can it be considered relevant for the purpose of achieving economic efficiency. This leads us to conclude that the "de-territoriality" of the market is also the "de-territoriality" of the company, whose size in terms of capacity is only relevant for the purposes of maintaining, restoring or improving the conditions of economic equilibrium.

The problem of the "optimal dimension", if ever a solution to it has been found, today demonstrates its irrelevance. This leaves the road open to some questions: the growth process is not linked to size growth (of capacity); indeed, in the face of global upheavals the only imperative that should affect large and small companies, regardless of the sector in which they operate, is to seek competitive advantages in intangible and no longer traditional advantages. In fact, the human factor can guarantee companies competitive positions in a non-exclusive, but at least significant, manner. What, therefore, is sense of those processes of expansion (of capacity) for the growth and competitiveness of companies? It is not easy to grasp the essence of vertical and horizontal integration processes conducted in the pursuit of economies of scale, but also of scope and variety, and not consciously aimed at consolidating its intangible assets.

On the other hand, quantitative growth, it was said at the beginning of our paper, tends to be coherent with the company's underlying strategic orientation and in tune with current trends and behavior patterns. This leads us to conclude that the phenomenon of transversal relationships (informal, on a contractual or patrimonial basis) can still find justification in the pursuit of increases in production capacity.

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ENTREPRENEURSHIP AND THE CITIES IN A KNOWLEDGE-BASED PERSPECTIVE: EVIDENCE FROM THE EU

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ABSTRACT

The present paper aims to answer the following research questions: i) is the knowledge of a city environment a stimulus for entrepreneurship? ii) which knowledge profiles of cities are more propulsive in order to stimulate entrepreneurship? In order to answer the aforementioned research questions, two multidimensional indexes have been created: KBCDE - Knowledge Based City Developing Entrepreneurship and Entrepreneurship (ENT). The sample includes all capital cities in the EU28. The presence of cities from EU28 countries is important to foster the entrepreneurial attitude in each European Country. We have also included 32 non-capital cities in the EU that are important hubs, contributing to a sample formed of 60 cities. Our work tries to contribute to the debate on urban economic development and entrepreneurship, providing implication for academics and urban policy makers. The empirical results show that the social and cultural environment may significantly improve the entrepreneurship in EU cities, moreso than others factors that are usually connected to economic development.

Keywords: Entrepreneurship, knowledge economy, knowledge city, key factors, statistical index

INTRODUCTION

Following the extant economic and managerial literature, the determinants and the effects of entrepreneurship on economic development present a national or regional perspective (e.g., Audretsch and Fritsch 2002; Crescenzi et al. 2007; Glaeser et al. 2010, 2014; Acs et al. 2014). Recent political and academic issues on entrepreneurship highlight, instead, the need to focus the aforementioned topics at city level. In recent years European Urban Policy has encouraged urban policy makers to create the supportive conditions to incentivise the creation, development and maintenance of entrepreneurship (e.g. "The State of European Cities Report", 2016). The economic literature on entrepreneurship at city level is still scarce: the main studies on the effects of

entrepreneurship in cities tend to focus on North American or emerging economy cities (Glaeser et al. 2010, 2014; Florida 2002; Florida et al. 2008), while only a few academic contributions are addressing the economic and social effects of entrepreneurship (Audretsch et al. 2015) and the drivers of the creation of an entrepreneurship ecosystem in the European cities (Audretsch and Belitski, 2017). In this vein, the present paper focuses on the role of urban environment in promoting entrepreneurship from a knowledge economy perspective. It is commonly recognized that in knowledge economy cities are characterized by a growing proportion of knowledge workers and by the service-orientation of the economic activities (Sassen, 1994; Hendriks, 1999; Madon and Sahay 2001; Turok 2008; Glaser et al. 2010; 2014). At EU level, Lever (2002) has found a positive correlation between economic development and knowledge “attitude” in European cities. From this perspective, urban policies and governance should be oriented to nurture a strong “people climate” in order to attract and retain talent in urban areas to form analytical, synthetic, and symbolic knowledge bases (Florida, 2002).

Knight (1995; 2008), Perry (2008) and the Yigitcanlar (2011) have defined the concept of Knowledge Based Urban Development - KBUD as new development paradigms of the global knowledge economy aimed at creating economic prosperity, socio-economic order, sustainability and good governance in cities. The goal is to construct a knowledge city (Carrillo et al., 2014) that is a city which is focused on knowledge-based development, by continuously encouraging the Knowledge Management processes (Carrillo et al., 2014; Penco, 2015; Edvardsson et al., 2016).

In this approach the relationship between the paradigms characterizing the global “knowledge city” and their effects on the entrepreneurship does not explicitly emerge; therefore, the impact of the knowledge economy basis in the urban development and the creation of “new entrepreneurship” is an understudied topic. In light of these considerations, the present contribution aims to answer the following research questions: i) is the knowledge city environment a stimulus for entrepreneurship? ii) which profiles of knowledge cities are more conducive to stimulate entrepreneurship? The research is carried out on a sample including all capital cities in the EU28. The presence of cities from every EU28 Country is important to foster the entrepreneurship attitude in each European Country. We also include 32 non-capital cities in the EU that are important hubs, reaching a sample formed of 60 cities. The paper is organized as follows. Section 2 reviews extant literature on knowledge cities and entrepreneurship. Section 3 explains the research design and method, describing the construction of the indicators and shows the major empirical findings. Section 4 discusses the outcomes, bringing implications for academics and practitioners, before concluding.

LITERATURE REVIEW: CITIES AND ENTREPRENEURSHIP

The evolution of cities is becoming an actual topic in itself, due to the intense increase in the recorded

urbanization rates both in Advanced and Developing countries (Madon and Sahay 2001; Turok 2008; Glaser et al. 2010). Recent analyses carried out by leading consulting companies confirm the trend towards an Urban World, as cities' contributions to the economy and global society - in terms of wealth creation and population concentration – have grown in the last thirty years (McKinsey 2016). In other terms, the world is characterized by a level of urban development unprecedented in human history, considering that since 2008, the majority of the world's population live in urban areas (Russ et al., 2017).

The relevance of the phenomenon has therefore attracted the attention of researchers (mainly regional and industrial economists and urban planners) and practitioners, as well as public administrators, who have attempted not only to interpret explanatory factors and the path leading up to this phenomenon, but also to perceive/identify the social and economic effects of urban concentrations. In recent years, academic studies have found the relevance of “people climate” in order to attract and retain talent in urban areas to form analytical, synthetic, and symbolic knowledge bases (Florida, 2002). In this vein, Carrillo (2004) coined the concept of knowledge city to identify metropolitan areas which –similar to a production system– are able to facilitate the creation of knowledge. In contrast to other concepts of cities (e.g., Smart city, Digital City), knowledge cities are particular focused on the human dimension, e.g. people, education, learning and knowledge (Cocchia, 2014). A knowledge city “is a city that is aimed at knowledge-based development, by continuously encouraging the KM (knowledge management) processes. Literature has stated that knowledge cities are the most capable of producing sustainable economic growth. Cities, where relationships between people are more extensive, provide the most natural environment in which to look for evidence of knowledge spillovers so emphasized by the endogenous growth theory (Audresch et al., 2015). Literature has defined framework and indicators aimed at measuring and achieving the development of an urban contest in a knowledge perspective. Knight (1995; 2008), Perry (2008) and the Yigitcanlar (2011) have defined the concept of KBUD as new development paradigms of the global knowledge economy aimed to create economic prosperity, socio-economic order, sustainability and good governance to city (Yigitcanlar, 2011; Yigitcanlar et al., 2015). Following the KBUD, Garcia (2012) has illustrated the MAKCi (Most Admired Knowledge City) framework is basically a knowledge-economy model, which involves an assessment of value based on which the future development of a city is made possible. Mendez and Moral (2010), studying the cities in the knowledge economy, have identified the key components of a knowledge city, analysing the most important municipalities in Spain. Víctor-Raúl López-Ruiz et al. (2014) adopted Knowledge City Indicator (KCI), aimed to assess not only the sustainability and social wellbeing, but also intangible factors such as human development, economic structure, trade, image and innovation.

In the aforementioned frameworks, the relationship between the paradigms of the global knowledge city and the effect on the level of entrepreneurship doesn't explicitly emerge. Even if case histories of entrepreneurship in cities are concretely common (e.g., De Groot et al. 2009; Rosenthal and Strange 2004; Bosma and Sternberg, 2014), the factors and the mechanisms that stimulate entrepreneurship in urban areas remain under-examined (Beaudry and Schiffauerova, 2009). In the sphere of economic and regional studies, there is considerable literature focused on the territorial dimension of the entrepreneurship phenomenon, in particular on the determinants and the impact of entrepreneurship on the economy and the development of territory (Audretsch 2003; De Groot et al. 2009; Acs et al. 2009; Glaeser et al. 2010, 2014; Andersson et al. 2011; Stam 2014). It is commonly recognized that the predominant studies are focused on countries or on regional level (e.g., Audretsch and Fritsch 2002; Stam 2014; Crescenzi et al. 2007; Glaeser et al. 2010, 2014; Acs et al. 2014). The recently developed Global Entrepreneurship and Development Index (GEDI) (Acs et al., 2013) and REDI index (Szerb et al., 2013) are aimed at capturing the interaction between individuals and the economic-structural environment at national and regional levels. The recent trend in entrepreneurship policy (e.g. "The State of European Cities Report, 2016 - Cities leading the way to a better future"; <https://ec.europa.eu/futurium/en/urban-agenda>) and academic research (Glaeser et al. 2014; Mason & Brown, 2014)) has boosted the attention not only on the national and regional prospective to study entrepreneurship, but also on local-urban perspective. Cities are an appropriate environment for entrepreneurship (Szerb et al. 2013) by providing a relevant socioeconomic and institutional context within the entrepreneurial ecosystem (Audresch et al., 2017).

The most important appeal of large metropolitan areas that are able to affect the development and for the settlement of entrepreneurship is linked to agglomeration economies (Glaeser et al. 2014) which enable higher externalities and spillovers (Audretsch et al. 2006; Ghio et al. 2014), economies of scale and incentives to innovation and growth (Audretsch 2007; Szerb et al. 2013; Feldman 2014). In contrast to Marshallian economies in industrial districts, urban agglomeration economies are "knowledge agglomerations" (Penco, 2015).

Cities provide amenities and infrastructures that are attractive to its high human capital residents (Florida, 2002; 2008). Physical conditions and amenities increase social life and a perceived improvement in quality of life (Glaeser and Gottlieb, 2006; Warnaby and Davies 1997; McKee and McKee 2004; Benninson et al. 2007; Turok 2008). Transport links either foster or constrain interaction between the agents of the entrepreneurial ecosystem (Turok 2008; Audretsch et al. 2015c).

The main studies are focused on the effects of entrepreneurship in North American cities or those in emerging economies (Glaeser et al., 2010,2014; Florida 2002; Florida et al. 2008; Andersson et al. 2011). The contemporary European urban context (Dijkstra et al. 2013) has however been studied less (see

Acs et al. 2014; Bosma and Sternberg, 2014). Moreover, the entrepreneurship phenomenon in the knowledge city context is not directly studied even if it is commonly recognized that the knowledge development context is one of the most important feature in entrepreneurship development. On the basis of the aforementioned premises and literature gap in the relationship between the knowledge city framework conditions and the entrepreneurial development, our work follows the KBUD framework (Yigitcanlar, 2011; Yigitcanlar et al., 2015) and the entrepreneurship research (Stam et al, 2014; Szerb et al. 2013, Levie and Autio, 2014), connecting and extending their works in three important ways. Firstly we create 4 domains of Knowledge Cities “entrepreneurship oriented”. Secondly, we create an innovative index for measuring the entrepreneurial action at city level. Thirdly, we explain the relationship between each dimension of knowledge city at an entrepreneurship level, trying to identify any bottlenecks and policy implications (Levie and Autio 2014).

METHODOLOGY

The sample includes all capital cities in the EU28. The presence of cities from every EU28 Country is important to foster the entrepreneurship attitude in each European Country. We also include 32 non-capital cities in the EU that are important hubs, reaching a sample formed of 60 cities (Bannerjee et al 2016). We decided to create an innovative multidimensional index (KBCDE - Knowledge Based City Developing Entrepreneurship) in order to better explain the different dimensions of “Knowledge cities” following a consolidated methodology (Nardo et al. 2005; Ivaldi et al. 2016a), which defines different stages in order to develop a composite indicator. The selected dimensions really cover the multidimensional nature of “knowledge”: they are sufficiently different, fully describing the multidimensionality of the phenomenon and thus the risk of self-correlation is avoided.

We have considered it appropriate to construct an index based on currently available data, which does not require ad hoc surveys, with the double benefit of avoiding additional costs and also being able to easily and regularly update it (Ivaldi et al. 2016;). The analysis of the literature offers several ways to derive *a priori* which should be the most suitable variable to insert the index (Yigitcanlar et al., 2015), even if the choice is conditioned, of course, both by the availability of data and the purpose of the index itself. Data is obtained from Nesta, European Venture Capital Association, Crowdsurfer, World Bank, Cushman-Wakefield, Ookla, ITU, European Statistical System: CensusHub2, Ghtorrent, Eurobarometer, GP Bullhound, CB Insights, QS University Rankings, Numbeo, DG Regio, Teleport, Global Entrepreneurship Monitor, Eurostat, Meetup.com, Gust, Open Axel, Seed DB, European Business Angels Network. Data collection was carried out in 60 European cities: all capital cities in the EU28 and 32 non-capital cities in the EU that are important hubs of digital entrepreneurship

(Bannerjee et al 2016). Finally we decided to consider 28 indicators grouped in the 4 dimensions (Table 1).

Variables containing outliers were treated so that the largest/smallest value was transformed to have the same value as the second largest/smallest value until skewness and kurtosis fell within the acceptable limits, respectively 2 and 3,5 (Bannerjee et al 2016). All the variables are normalised to within an identical [0,1] range by subtracting the minimum value and then dividing by the entire range of values for that indicator using the Min-Max normalisation method (Han et al. 2012). About 99% of the data was complete and missing data was replaced with the mean of the other variables in that theme obtained for that city in order that for cities containing missing values, the theme scores obtained using imputed data were the same as those that would have been obtained had the variables containing missing values been excluded from the Index (Bannerjee et al 2016). In the absence of dominance of one dimension over all others, some combination or aggregation is necessary in order to make "Knowledge" inter-individually comparable. The weighting of the relevant life domains is deemed a crucial (Nardo et. al 2005), but very difficult issue and we have opted for equal weighting for different reasons. First of all, the theoretical scheme attaches to each indicator the same adequacy in defining the variable to measure; secondly it does not allow hypotheses consistently derived from differential weightings and the statistical and empirical knowledge is not sufficient for defining weights; finally there is no agreement as to the application of alternative procedures (Maggino 2009). Indeed, even though it would be desirable to assign different weights to the various domains considered, there is no reliable basis for doing so and in any case this does not mean no weighting as equal weighting does imply an implicit judgment on the weights being equal (Nardo et al. 2005).

We carried out the study using a non-compensatory index: *DP2 Distance* because in the construction of composite indicators, when the symmetry of variables or their weight is to be kept relevant and interpretable, it is necessary to use non-compensatory methods (Munda and Nardo 2005). A non-compensatory index considers the variables as non-substitutable and it assumes no probability law regarding the distribution of variables.

The Pena Distance Index (DP2), although non-compensatory, is a parametric index, because its formulation is based on the application of the linear regression model. Proposed by Pena in 1977 (Pena 1977), DP2 use is increasing after Somarriba and Pena (2009) published a paper in English using DP2 criticizing both Principal Component analyses (PCA) and Data Envelopment Analysis (DEA). Some refinement of the method has been proposed (Montero et al. 2010). The DP2 method is an iterative procedure that weighs partial indicators depending on their correlation with the global index. The DP2 method has been used in different arguments: economic and social cohesion (Holgado Molina et al. 2015); environmental quality (Montero et al., 2010); quality of life (Somarriba and Pena, 2009;

Sommariba and Zarosa, 2016), welfare systems (Martinez-Martinez, et al. 2016), political participation (Ivaldi et al. 2017a), deprivation (Landi et. al 2017) and measure of objective and subjective health (Ivaldi et. al 2017b). This construction solves a large number of problems, for instance, aggregating variables expressed in different units of measurement, arbitrary weights, the treatment of missing values and duplicate information (Pena 1977; Somarriba and Pena 2009; Montero et al. 2010). Moreover, this method is considered more robust than traditional methods such as Principal Component Analysis and Data Envelopment Analysis, as demonstrated by Somarriba and Pena (2009). The DP2 distance synthetic indicator also has many properties: non-negativity, commutativity, triangular inequality, existence, determination, monotony, uniqueness, transitivity, invariance to change of origin and/or scale of units in which the variables are defined, invariance to a change in the general conditions and exhaustiveness and reference base. (Nayak and Mishra 2012).

Dimensions	Variables						
Social and Talent-cultural perspective (STC)	Multicultural Diversity (Percentage of population that are foreign-born)	Access to graduates (Percentage of population aged 25-64 with tertiary (level 5 - 8) education attainment)	English language skills (Percentage of city's population who can communicate in English)	Quality of research institutions (Number of research intuitions in top 200)	Size of potential mobile-based market (Number of active mobile-broadband subscriptions per 100 inhabitants)	Culture & recreation (Average scores attributed to diverse cultural facilities)	
Economy and Knowledge economy perspective (EKE)	Online collaboration (Number of GitHub Users within the last 12 months)	Labour costs* (Average salary for: Software Developers, Web Designers, Web Developers, Business Developer, Content Marketing, Sales Manager, Customer Support (€ per annum)	Access to ICT employees (Number of employees in ICT sector/working population)	Access to Support Employees (Number of Employees in: Legal and Accounting Activities; Advertising and Market research; Office administrative, office support and other business support activities/working pop.)	Ease of doing business (Time and cost associated with doing business (Distance to Frontier score)	Cost of office space* (Average rental cost or price of commercial property (€/Sqm/Year)	Research & Development intensity (Expenditure on R&D (thousands of PPS)
Environmental and Infrastructural perspective (ENI)	Internet download/upload speed (Broadband speed (MB/Sec)	Cost of broad band * (Fixed broadband subscription	Mobile internet download/upload speed (Speed of mobile internet (MB/Sec)	Standard of living (Quality of life index score)	Commute (Average travel time and distance to work)	Train Connectivity (Total population that can be	Airport Connectivity (Score based on number of flights from

	charge (\$ / Month)					reached within 3h of train travelling)			local airports)
Urban innovation system perspective (UIS)	Availability of early-stage funding in PPP (Amount of seed and start-up funding raised (€ thousands)	Availability of late-stage funding in PPP (Amount of later-stage funding raised (€ thousands)	Availability of BA investment in PPP	Availability of crowdfunding (Amount pledged to successful campaigns through any models)	Networking and mentoring events (Number of meetups events in the last year per capita)	Access to accelerators (Number of accelerators per capita)	Availability of early-stage assistance (Number of Business Angels per capita)	Public sector information (Public Sector Information Score)	

1. * Inverted variables

Table 1 – Dimensions and variables used (Source: Our elaboration)

The basis of the synthetic indicator is a mathematical function expressed as $I = F(x_1, x_2, \dots, x_n)$, where I is the synthetic indicator and n is the number of variables, x , that contribute information to our index. Starting from a matrix X of order (j, i) , where j – the rows – is the number of the areas considered in this paper and i – the columns – is the number of variables considered. Each element x_{ij} of this matrix represents the state of the variable i in the area j . The DP2 indicator, providing the distance of each region from a reference base, which corresponds to the theoretical area achieving the lowest value of the variables being studied, is defined for area j as follows):

$$DP_{2j} = \sum_{i=1}^n \left\{ \left(\frac{d_{ij}}{\sigma_i} \right) \left(1 - R_{i,i-1,i-2,\dots,1}^2 \right) \right\} \quad \text{with } i = 1, \dots, n; \text{ (areas) and } j = 1, 2, \dots, m \text{ (variables)}$$

$d_{ij} = |x_{ij} - \min_i x_i|$, being the difference between the value taken by the i -th variable in the area j and the minimum of the variable in the least desirable theoretical scenario, namely the reference value of the matrix X .

σ_i is the standard deviation of variable i ;

Note that the quantity $\frac{d_{ij}}{\sigma_j}$ is merely a change in the origin and scale, and one may also use zero as the reference ρ point and $[max_i(x_{ij}) - min_i(x_{ij})]$ instead σ_j as a scaling factor, without any adverse effect on the formula (Montero et al. 2010).

$R_{i,i-1,i-2,\dots,1}^2$ is the coefficient of multiple linear correlation squared in the linear regression of X_i over $X_{i-1}, X_{i-2}, \dots, X_1$, and it indicates the part of the variance of X_i explained linearly by the variables $X_{i-1}, X_{i-2}, \dots, X_1$. This coefficient is an abstract number and it is unrelated to the measurement units of the different variables.

$(1 - R_{i,i-1,\dots,1}^2)$ is the correction factor, which shows the variance part of X_i not explained by the linear regression model. This factor ensures that the composite synthetic indicator includes only the new information from each variable, avoiding the duplication of information already contained in the preceding variables.

Therefore $(1 - R_{j,j-1,\dots,1}^2) \cdot R_{j,j-1,\dots,1}^2$ with $j > 1$ is the coefficient of multiple linear correlation squared in the linear regression of the first chosen j over the successive other indicators included one by one. The first variable obtains an absolute weight of unity $(1 - R_1^2)$, the subsequent variable $j = 2$ obtains a weight $(1 - R_{2,1}^2)$, the third $j = 3$ $(1 - R_{3,2,1}^2)$, and in general, the j th variable obtains a weight $(1 - R_{j,j-1,\dots,1}^2)$. The chosen j is regressed over other indicators included one by one. The resulted $R_{j,j-1,\dots,1}^2$ for any J is used as a sort of weight. In this way the weight assigned to each indicator follows a precise rule that has the goal of reducing the duplicity of information that often affects aggregation methods (Somarriba and Peña 2009; Montero et al. 2010). Concerning the weights, the

first variable obtains an absolute weight of $(1 - R_1^2)$. The subsequent variable $j=2$ obtains a weight $(1 - R_{2,1}^2)$. In general, the j^{th} variable obtains a weight $(1 - R_{j,j-1,\dots,1}^2)$. Thus, the weights assigned to a variable depend on its position in the order, making DP2-based composite synthetic indices indeterminate and arbitrary (Montero et al. 2010). It is worth noting that the weights assigned to a variable will depend on its position in the order, making DP2-based composite synthetic indices indeterminate and arbitrary (Nayak and Mishra 2012). Montero et al. (2010) try to suggest the following procedure to solve the indeterminacy problem:

1. Initialize the weight vector, $w_j = 1 \forall j = 1, 2, \dots, m$ and define $\varepsilon = 0.00001$.
2. Define $\partial_{ij} = \left(\frac{d_{ij}}{\sigma_j}\right) \forall j = 1, 2, \dots, m$ and $i = 1, 2, \dots, n$.
3. Obtain $DF_i = \sum_{j=1}^m \left[\left(\frac{d_{ij}}{\sigma_j}\right) w_j\right]; i = 1, 2, \dots, n$.
4. Compute Karl Pearson's coefficient of correlation $r(DF, \partial_j)$ between DF and $\partial_j \forall j = 1, 2, \dots, m$. Arrange $|r(DF, \partial_j)|$ in descending order and re-index the associated variables ∂_j accordingly.
5. Compute $Z_i = \sum_{j=1}^m \left[\left(\frac{d_{ij}}{\sigma_j}\right) w_j\right]; i = 1, 2, \dots, n; w_j = (1 - R_{j,j-1,\dots,1}^2)$ for $j = 2, 3, \dots, m$ and $w_1 = 1$.
6. If $\sum_{i=1}^n (DF_i - Z_i)^2 \geq \varepsilon$ then replace DF by Z go to 4), otherwise: finish.

This construction of KBCDE solves a large number of problems, for instance, aggregating variables expressed in different units of measurement, arbitrary weights, the treatment of missing values and duplicate information (Pena 1977; Somarriba and Pena 2009; Montero et al. 2010). Higher scores represent situations of good "knowledge" rather than lower scores. In this way, we complete the index for each dimension, as well as for the aggregate global indicator of knowledge (Ivaldi et al 2016b). We used the same methodology to create the index of Entrepreneurship (ENT) using three variables: New-business density, Absence of negative perception of entrepreneurship (% of population) and History of highly successful digital companies (per capita).

RESULTS AND DISCUSSIONS

The findings show the different ranking of the samples EU cities (Table Annex 1A). London appears as the best performer, in terms of Social and Talent-cultural perspective (1st; STC=16.8038), Urban innovation system perspective (1st UIS=6.049993) and then on the basis of "KBCDE - Knowledge Based City Developing Entrepreneurship synthetic measures (1st; 8.224808); these profiles stimulate the leading position in Entrepreneurship (1st; ENT=4.18), confirming previous academic contributions (Table 2). Consistently with the main literature (Ergazakis et al. 2004; Edvinsson et al., 2006), Stockholm follows London in KBCDE (2nd; 8.648025), thank to the good position of the social aspect

(2nd; 13.80082) and in the creation of a good innovative system (2nd; UIS=5.824475). London and Stockholm are followed by Oxford, Paris, Amsterdam, Copenhagen and Helsinki. It is no coincidence that the top cities in KBCDE have recently implemented dictated policies, making the city governments' activities more coherent. Some of these cities have implemented explicit policies in order to earn the "status of Knowledge Cities". These policies aim to enhance the competitiveness of these cities and the national system in which they are located, as well as to realize a harmonious development with the other neighbouring towns. In the contemporary economy, in fact, cities are in competition with each other in attracting investments, business, inhabitants and tourists and to improve citizens' satisfaction. In order to deal with this competition, cities use different tools: strategic planning, marketing strategies, city branding, etc. In particular, having dictated policies brings the following value to cities: increased competitiveness, resulting in a positive impact on investment, jobs, inhabitants, visitors and events; higher returns on investment in real estate, infrastructure and events; coherent city development, as the physical, social, economic and cultural aspects combine to deliver the brand promise; pride in the city as the inhabitants, businesses and institutions experience a new sense of purpose and direction. These results confirm that the top cities are located in Northern Countries; policies aimed at enhancing the level of quality in social, economic, environment-sustainability and in supportive interventions for new firms have stimulated the creation of a knowledge-based context. It was also chosen to compare, through the Spearman rank correlation coefficient, KBCDE results with ENT. Pearson's correlation is moderately good (0.534). The component more correlated with ENT Index is described by STC (0.645) and partially from UIS (0.383) (Table 3). The findings demonstrate that a high score in KCBED is a valuable predictor of ENT attitude at city level, confirming that a knowledge city environment is a stimulus for the development of entrepreneurship.

Social and perspective (STC)	Talent-cultural	Economy and context perspective (ECE)	Environmental Infrastructural (ENI)	and perspective	Urban innovation system perspective (UIS)	Knowledge Developing (KBCDE)	Based Entrepreneurship	City	Entrepreneurship (ENT)		
London	16.8038	Copenhagen	15.06178	Oxford	14.58987	London	6.049993	London	9.959138	London	8.224808
Stockholm	13.80082	Stockholm	15.0512	Eindhoven	14.03939	Berlin	5.824475	Stockholm	8.648025	Helsinki	7.749732
Paris	13.64918	Oxford	14.60241	Bucharest	13.99348	Paris	5.708616	Paris	8.509631	Luxembourg	7.593964
Copenhagen	12.6886	Bratislava	13.28536	Utrecht	13.771	Amsterdam	5.402046	Amsterdam	7.648754	Edinburgh	7.530247
Dublin	12.33819	Helsinki	13.18427	Amsterdam	13.4613	Stockholm	4.524545	Copenhagen	7.571006	Stockholm	7.304285
Helsinki	12.25467	Munich	13.136	Riga	13.41641	Dublin	4.090384	Helsinki	7.412375	Copenhagen	6.916872
Amsterdam	11.22223	Cambridge	12.65344	Birmingham	13.08128	Munich	4.035582	Oxford	7.277531	Dublin	6.662735
Oxford	10.77855	Hamburg	12.43434	The Hague	12.9781	Helsinki	3.891199	Berlin	6.807849	Tallinn	6.513686
Edinburgh	10.64011	Berlin	12.28981	Paris	12.72561	Hamburg	2.988325	Dublin	6.612114	Bristol	5.959149
Brussels	10.40605	Lisbon	12.2458	Lille	12.36307	Vienna	2.949845	Munich	6.581155	Berlin	5.865207

Table 2 – The top ten cities

		Social and Talent-cultural perspective (STC)	Economy and context economy perspective (ECE)	Environmental and Infrastructural perspective (ENI)	Urban innovation system perspective (UIS)	KBCDE Index
ENT	Pearson					
Index	Correlation	.645**	.123	.238	.383**	.534**
	Sig. (2-code)	.000	.349	.067	.003	.000
	N	60	60	60	60	60

Correlation is significant at 0.01 level (2-tailed).

Table 3 – Correlations

In order to understand which profiles of knowledge cities are more propulsive in order to stimulate entrepreneurship, first, as the Social and Talent-cultural perspective (STC) help to attract and retain talents, the empirical outcomes corroborate the positive association between a good social environment and entrepreneurship attitude at city level. Moreover, the outcomes test the relevant role of the creation of interventions and measures aimed at developing an Urban innovation system perspective (UIS) in shaping entrepreneurship.

CONCLUSION AND FURTHER RESEARCH

In conclusion, challenging the theme of entrepreneurship in the urban context, our study yields several insights. First, we have created a new composite index called KBCDE and we have applied this model to 60 EU cities (capital cities and other important cities). Secondly, on the basis of a set of sub-indexes, we have studied a relationship between each profile of knowledge cities and entrepreneurship, on a sample of 60 EU cities. Third, our work tries to contribute to the debate on urban economic development and entrepreneurship, providing implication for academics and urban policy makers. The empirical results test that the social and cultural environment may significantly improve entrepreneurship in EU cities, more than others factors that are usually connected to economic development. This contribution presents some inherent limitations, which might be challenged in future research. Firstly, the investigation is performed only on EU cities; further studies are therefore required to enlarge the sample of cities, including other urban areas and to make a comparison with other relevant Countries (e.g., Emerging Economies/Advanced Economies). In addition, the number of variables and attributes referred to each dimension might be expanded, embodying also additional perspectives, which could reasonably contribute to achieve a better understanding of the determinants affecting the development of entrepreneurship at urban level.

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ANNEX

Social and Talent-cultural perspective (STC)	and	Economy and context economy perspective (ECE)	and	Environmental and Infrastructural perspective (ENI)	Urban innovation system perspective (UIS)	KBCDE	ENT				
London	16.8038	Copenhagen	15.06178	Oxford	14.58987	London	6.049993	London	9.959138	London	8.224808
Stockholm	13.80082	Stockholm	15.0512	Eindhoven	14.03939	Berlin	5.824475	Stockholm	8.648025	Helsinki	7.749732
Paris	13.64918	Oxford	14.60241	Bucharest	13.99348	Paris	5.708616	Paris	8.509631	Luxembourg	7.593964
Copenhagen	12.6886	Bratislava	13.28536	Utrecht	13.771	Amsterdam	5.402046	Amsterdam	7.648754	Edinburgh	7.530247
Dublin	12.33819	Helsinki	13.18427	Amsterdam	13.4613	Stockholm	4.524545	Copenhagen	7.571006	Stockholm	7.304285
Helsinki	12.25467	Munich	13.136	Riga	13.41641	Dublin	4.090384	Helsinki	7.412375	Copenhagen	6.916872
Amsterdam	11.22223	Cambridge	12.65344	Birmingham	13.08128	Munich	4.035582	Oxford	7.277531	Dublin	6.662735
Oxford	10.77855	Hamburg	12.43434	The Hague	12.9781	Helsinki	3.891199	Berlin	6.807849	Tallinn	6.513686
Edinburgh	10.64011	Berlin	12.28981	Paris	12.72561	Hamburg	2.988325	Dublin	6.612114	Bristol	5.959149
Brussels	10.40605	Lisbon	12.2458	Lille	12.36307	Vienna	2.949845	Munich	6.581155	Berlin	5.865207
Vienna	10.36009	London	12.0925	Luxembourg	12.08131	Barcelona	2.741789	Vienna	6.232176	Aarhus	5.589645
Göteborg	10.10551	Madrid	12.03429	Vienna	12.01809	Madrid	2.652492	Brussels	5.617563	Valletta	5.495736
Berlin	10.00898	Karlsruhe	11.87062	Vilnius	11.97788	Copenhagen	2.606715	Edinburgh	5.537241	Bordeaux	5.338307
Munich	9.98695	Stuttgart	11.31708	Malmö	11.96795	Lisbon	2.484333	Utrecht	5.458242	Manchester	5.098626
Bristol	9.775415	Bristol	11.1703	Cambridge	11.67424	Budapest	2.317246	Cambridge	5.455565	Lille	4.842019
Manchester	9.74808	Cologne	11.14841	Aarhus	11.54959	Frankfurt	1.962662	Bristol	5.360879	Paris	4.828452
Birmingham	9.674804	Bucharest	11.11153	London	11.50782	Brussels	1.872977	Madrid	5.229462	Birmingham	4.801546
Glasgow	9.491852	Sofia	11.06361	Brussels	11.46573	Cologne	1.869865	Manchester	5.093228	Amsterdam	4.741634
Luxembourg	9.343856	Prague	10.8789	Manchester	11.36004	Cambridge	1.801064	Birmingham	4.888525	Cardiff	4.634851
Utrecht	9.287238	Dublin	10.78713	Lyon	11.26603	Lyon	1.710804	Malmö	4.779114	Utrecht	4.562249
Cardiff	9.252585	Uppsala	10.68397	Edinburgh	11.25431	Manchester	1.680949	Uppsala	4.743623	Oxford	4.486678
Malmö	9.105836	Ljubljana	10.62305	Bratislava	11.18181	Bristol	1.447445	Tallinn	4.698871	Toulouse	4.477051
Uppsala	9.032676	Vienna	10.55184	Uppsala	11.16562	Tallinn	1.416495	Hamburg	4.687981	Cambridge	4.431113
Aarhus	8.662083	Edinburgh	10.49256	Tallinn	10.78256	Toulouse	1.365154	Eindhoven	4.577099	Glasgow	4.301462

Tallinn	8.4887 34	Tallinn	10.389 16	Bordeau x	10.780 25	Birmingham	1.2999 63	Aarhus	4.4897 87	Nicosia	4.2618 25
Barcelona	8.4043 73	Budapest	10.272 09	Bristol	10.767 23	Oxford	1.2901 47	Barcelona	4.4725 62	Madrid	4.0730 94
Cambridge	8.2182 8	Paris	10.268 74	Budapest	10.563 64	Edinburgh	1.2148 12	The Hague	4.3956 82	Uppsala	4.0662 39
Madrid	8.1967 8	Amsterdam	10.198 41	Cardiff	10.351 76	Eindhoven	1.19 12	Gothenburg	4.2747 27	Barcelona	4.0566 49
Nicosia	8.1422 46	Utrecht	10.123 55	Prague	10.082 57	Lille	1.1803 33	Cardiff	4.2432 81	Athens	3.9383 87
The Hague	7.9015 79	Frankfurt	10.077 57	Dusseldorf	10.005 47	Valencia	1.1518 05	Frankfurt	4.2288 46	Bucharest	3.8762 08
Hamburg	7.7177 28	Brussels	10.002 6	Frankfurt	9.9030 21	Utrecht	1.1450 19	Riga	4.1837 45	Eindhoven	3.6917 32
Eindhoven	7.7120 28	Warsaw	9.8195 09	Copenhagen	9.8864 75	Bordeaux	1.1396 87	Lisbon	4.1610 2	The Hague	3.6639 5
Karlsruhe	7.4416 29	Riga	9.4526 66	Madrid	9.8669 05	The Hague	1.1281 41	Bucharest	4.1065 16	Malmö	3.6587 63
Frankfurt	7.3722 23	Malmö	9.4397 19	Valencia	9.8315 64	Dusseldorf	1.0732 14	Bratislava	4.0542 28	Valencia	3.6193 13
Lyon	7.2220 92	Aarhus	9.3882 16	Stockholm	9.8065 65	Warsaw	1.0659 12	Luxembourg	4.0257 77	Riga	3.6085 68
Riga	7.0754 4	Gothenburg	9.2532 36	Helsinki	9.7846 41	Vilnius	1.0127 84	Cologne	3.9958 13	Milan	3.5787 51
Stuttgart	7.0655 08	Toulouse	9.1949 94	Barcelona	9.6899 66	Milan	1.0113 62	Lyon	3.8886 11	Stuttgart	3.4864 2
Vilnius	6.9495 6	Krakow	9.1940 93	Toulouse	9.6121 66	Karlsruhe	0.9973 31	Glasgow	3.8588 83	Sofia	3.4846 59
Athens	6.6057 92	Manchester	9.1819 53	Munich	9.5866 49	Gothenburg	0.9821 55	Vilnius	3.8438 52	Munich	3.3064 83
Cologne	6.3354 54	Rome	8.8048 96	Cologne	9.5644 71	Krakow	0.9498 77	Karlsruhe	3.7644 62	Turin	3.1712 75
Ljubljana	6.0205 57	Vilnius	8.6940 95	Lisbon	9.4715 24	Malmö	0.9381 59	Budapest	3.6501 18	Vilnius	3.1199 69
Prague	5.9486 51	Dresden	8.5425 04	Warsaw	9.1836 3	Glasgow	0.9305 75	Stuttgart	3.5387 68	Lyon	3.1064 49
Dusseldorf	5.8938 99	Eindhoven	8.5150 2	Milan	8.9474 99	Cardiff	0.9075 48	Prague	3.4737 61	Rome	3.1064 49
Valencia	5.8936 89	Barcelona	8.5008 87	Glasgow	8.8878 55	Aarhus	0.8628 8	Toulouse	3.1811 13	Frankfurt	3.1027 45
Toulouse	5.8282 91	The Hague	8.4894 24	Berlin	8.5099 2	Ljubljana	0.8520 2	Sofia	3.0167 66	Cologne	2.8897 47
Milan	5.7598	Cardiff	8.4171 68	Sofia	8.2378 44	Stuttgart	0.7800 32	Dusseldorf	2.9721 94	Dusseldorf	2.8897 47
Sofia	5.7476 97	Dusseldorf	8.2963 99	Dublin	8.1599 92	Bratislava	0.7731 61	Warsaw	2.9610 85	Lisbon	2.7158 27
Lisbon	5.5346 59	Lyon	8.0261 22	Valletta	8.0320 97	Luxembourg	0.7048 76	Ljubljana	2.8642 86	Warsaw	2.6399 59
Bucharest	5.4342 91	Zagreb	7.8478 96	Krakow	7.9698 9	Prague	0.6843 02	Bordeaux	2.6659 99	Brussels	2.6150 09
Warsaw	5.3668 06	Glasgow	7.6777 99	Gothenburg	7.9510 32	Dresden	0.6785 24	Milan	2.4519 03	Prague	2.5741 97
Bratislava	5.2771 63	Athens	7.5086 48	Zagreb	7.8545 59	Rome	0.6299 72	Valencia	2.4106 02	Dresden	2.5285 74
Bordeaux	5.2749 69	Birmingham	7.4661 92	Stuttgart	7.7894 4	Sofia	0.5735 57	Lille	2.3507 67	Gothenburg	2.4544 88
Rome	5.2386	Turin	7.3761	Athens	7.3874	Uppsala	0.5708	Athens	2.2581	Karlsruhe	2.3804

	08		3		28		96		27	e	01
Zagreb	5.2107 12	Milan	7.3272 38	Karlsruh e	7.2183 62	Buchares t	0.5348 35	Nicosia	2.0506 29	Hambur g	2.3433 58
Budapest	4.9406 26	Bordeau x	7.1612 03	Hambur g	7.0992 59	Nicosia	0.5160 68	Rome	2.0296 15	Zagreb	2.0768 3
Dresden	4.7722 41	Lille	6.4437 33	Ljubljana	7.0496 85	Riga	0.4960 81	Zagreb	1.8975 49	Vienna	2.0459 72
Valletta	4.5701 96	Nicosia	6.2712 06	Rome	6.8465 16	Turin	0.4523 37	Krakow	1.8244 44	Krakow	1.9524 72
Lille	3.9264 78	Luxembo urg	6.1087 72	Dresden	6.3480 95	Athens	0.4023 52	Dresden	1.7102 96	Bratislav a	1.6128 64
Turin	3.7421 2	Valencia	5.9349 99	Turin	6.2696 01	Zagreb	0.3264 46	Valletta	1.0583 53	Ljubljana	1.5426 66
Krakow	3.4716 68	Valletta	5.4150 74	Nicosia	4.9036 34	Valletta	0.1262 81	Turin	0.9621 37	Budapest	0.6501 09

Table 4. ANNEX Table 1A – Cities (Source: Our elaboration)

M&A: AN EMPIRICAL ANALYSIS OF VALUE CREATION AMONG EUROPEAN COUNTRIES

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ABSTRACT

This paper proposes to analyze the correlation between the reputation of the investment banks, and the quality of the services offered by the latter as advisors in an M&A operation. It starts from an analysis of the literature that shows the general theory concerning M&A operations. Subsequently, the research focuses on the role of the advisor, and therefore of investment banks, with specific reference to the main factors that have led the top financial banks to success. To what extent is it really advantageous to recruit a top investment bank compared to a bank that has a lower reputation? This empirical analysis covers a specific period, whose middle point is to be considered that event, one of the most significant of today's finance, which has distinguished the financial world of recent years: the failure of Lehman Brothers. The analysis focuses, in fact, on the six years preceding the crisis that began precisely following the bankruptcy of Lehman Brothers, and over the six years following this crisis. The answer to this question is exposed after the empirical analysis that pulls the strings of the research and gives a well-founded answer, based on methodologies and analysis, exposing results aimed at demonstrating that the creation of value for the shareholders of the acquirer and target company does not it can be found in the advice offered by the top investment banks. In the statistical research some other variables are found significant for value creation.

Keywords: M&A; value creation; European countries.

INTRODUCTION

One of the most discussed fields to date and certainly listed among those most relevant to the modern financial world is the M&A activity. In fact, the relevance of the M&A phenomenon is such that, only in this activity, it is estimated that, in 2016, more than 3.8 trillion dollars were used⁴.

⁴ The volume of global mergers & acquisitions (M&A) activity in 2016 fell 18 percent from the record high seen in 2015, according to a review published by Dealogic. Moreover, the fall – from \$4.66 trillion in 2015 to \$3.84 trillion

Among the main players in the major merger and acquisition transactions, we mention the investment banks, which have taken on the role of advisors for the counterparties involved, from time to time, in the operations. Indeed, the largest investment banks, more precisely the top ten at global level, have in fact found a large profit margin due to their participation as advisors in the most significant transactions on the market. This figure gives us a clear idea of the strong hierarchy of the sector: a small circle of banks, the so-called top investment banks, govern and regulate the global investment banking service. The latter have earned, over the years, a reputation that can be considered as the greatest experts in the capital markets and, theoretically, it is considered plausible that they would be able to guarantee its customers also services performance considerably higher, compared to those of the most economical competitors, against considerably higher commissions (Chemmanur and Fulghieri, 1994).

This paper aims to analyze the correlation between the reputation of the investment banks, and the quality of the services offered by the latter as advisors. This empirical analysis covers a specific period, whose middle point is to be considered that event, one of the most significant of today's finance, which has characterized the financial world of recent years: the failure of Lehman Brothers. The analysis focuses, in fact, on the six years preceding the crisis that began precisely following the bankruptcy of Lehman Brothers, and over the six years following this crisis.

The sample of analysis includes deals among only listed companies: this is because negotiations between listed companies require a greater degree of disclosure of information and adaptation to more stringent provisions and procedures by sector authorities, which further increase the complexity of the deals and the need to have qualified and highly professionalized consultancy skills.

One of the main question is if the selection of a bank occupying the first positions of the league table actually generates greater value for the acquirer and the target shareholders? "Are good financial advisors really good?" (Ismail, 2010).

The answer to this question is set out in the analytical part, which, in addition to containing the empirical analysis, the real heart of research, pulls the strings of research and gives a well-founded answer, based on methodologies and analysis, exposing results aimed at demonstrating that the creation of value for the shareholders of the acquirer and target company cannot be found in the advice provided by the top financial banks.

in 2016 – followed three consecutive year-on-year increases. And while volume fell 18 percent, M&A revenue was down by only 2 percent. Dealogic, January 05, 2017

LITERATURE

The M&A activity consists of supporting the advisor to the company interested in buying or selling a business unit or branch, or two or more companies that want to give life to a new subject deriving from them, through the assignment of complexes and / or company branches. M&A is a strategic business area whose main feature is the management of a process, divided into a first "technical" part (from the first approach to the counterparts) and a second negotiating part (from the offering memorandum to closing): the advisor must therefore combine a medium level of technical skills and high negotiating skills.

The judgment and experience of an "independent" advisor can have a fundamental weight on the negotiations' success, and the company considers the consultant not only in terms of previous relationships, but also in terms of track record and the so called "beauty parade", which it can be facilitated by the fact that the nature of the M&A transaction lends itself to define the relationship between company and consultant through a contract that regulates the remuneration with a double level of commissions (the success fees linked to the success of the transaction to align the interests of the parties involved and the retained fee for the analysts' processing of the economic-financial and strategic-organizational profiles of the target company) to avoid the opportunistic behavior of the company aimed at disposing of the technical expertise (strategic evaluation and also of marketing) free of charge (Zara et al., 2001).

M&A activities include a range of services offered by financial intermediaries to support a rather wide range of interventions on corporate assets of companies, including: acquisitions, mergers, transfers and spin-offs, split offs, equity carve-outs, issuance of tracking stock, demergers, public purchase and exchange offers, seasoned offers and stocks buy-backs.

M&A transactions belong to the macro-category of "Extraordinary Finance" transactions, as transactions carried out for objectives different from those pursued by the "Ordinary Finance" of the company: acquisition of financial resources necessary for the performance of the core business of enterprise, the use of excess liquidity and treasury management.

There are many reasons and explanations why a company's management decides to undertake M&A transactions. One of the main reasons is expansion: acquiring a particular company that operates in a specific business, in a specific geographic area, in which the buying company wants to expand, can be a much faster strategy than internal growth (Gaughan, 2011). Corporate acquisitions therefore represent a way to pursue an alternative growth objective, compared to the strategic option represented by autogenous growth. In particular, when the disadvantages of internal growth appear to be predominant over advantages, then space is created for the activation of external growth paths and, therefore, for the realization of a M&A operation, such as, for example, the acquisition of a

company, or of a business unit or, again, of specific assets of the target company (Capizzi, 2007). The acquisition through external channels can also be part of a business diversification program in cases the purchasing company intends to move within a new business sector.

The explanations that companies provide in order to justify the implementation of M&A transactions focus not only on the possibility of faster growth, but also on the value creation. The term "synergy" is used to indicate the possibility of generating advantages through the combination of bidder and target; advantages that companies, considered individually, would not have been able to achieve.

Both acquirers and sellers expect benefits as a result of an M&A operation. Ravenscraft and Scherer (1987), simply wrote that sellers sell when buyers make sufficiently attractive offers. A spontaneous question arises: why should a company, a buyer, make such an offer? Still, what are the motivations that determine the convenience of carrying out mergers and acquisitions? First of all, it is important to point out that the M&A activity is often influenced by a number of factors. These are basically factors that in some way act as a trigger, creating the conditions for change and the economic and strategic opportunities that make an extraordinary finance operation attractive. These factors include, among others, regulation, the markets size, technological innovation, fluctuations in financial markets, and financial innovations. Stimuli, opportunities and threats that are generated within the market, can then be translated into strategic options, sources of synergies, that determine the convenience of an operation. Moreover, these strategic options presuppose a good degree of rationality in the markets and in the behavior both of managers and shareholders. However, sometimes it happens that corporate acquisitions are driven by irrational motivations, linked to the psychological sphere of the decision makers, which often lead to an operation failure. Leaving aside the subjective and irrational motivations, which are briefly reviewed later in this chapter, it is possible to group together the possible objective determinants of M&A transactions in five macro categories (Capizzi, 2007), undoubtedly partly correlated to each others, considering that a M&A operation can satisfy multiple reasons at the same time.

Many of the previous studies on the role of investment banks in M&A transactions have examined the effect of banks' reputation on the return to shareholders of client companies. In particular, the past researches focused more on the hypothesis which, historically, the literature referred to as "the superior deal hypothesis". This hypothesis argues that banks, with a better reputation, have the ability to identify both the best counterparts and to structure optimal deals, increasing the potential creation of value of an extraordinary financial transaction (Ismail, 2010). As a result, this hypothesis predicts a positive relationship between the reputation of the investment banks and the creation of value for shareholders.

The idea is therefore based on the idea that top investment banks are able to provide superior quality services. Considering that the quality of the most important activities falling within investment banking services is critically dependent on the experience of a bank (Ma, 2006), this is why the role of league tables in measuring the reputational capital of the banks becomes important. The top investment banks that have had the opportunity to be involved in a greater number of transactions have, inevitably, compared with multiple sectors, countries and customers and the know-how gained by them and certainly greater than that of minors banks. Moreover, thanks to the greater experience, bankers of the top investment banks should have superior negotiation skills that would result in better results for their clients.

Secondly, taking up the concept of reputation and certification role played by the financial intermediary, in the literature the certification hypothesis, defined in terms of investment banking activities, suggest that the most prestigious intermediaries, which are confirmed in the first positions of the league tables, should reduce the uncertainty of the markets on the actual quality of the transaction. Taking into consideration the new economic-financial context following the financial crisis, and considering the division of the analysis into two symmetrical periods, it is assumed that in the pre-Lehman period, characterized by a strongly growing market and an intense activity of M & A, the reputation of the banks was not necessarily an expression of better shareholder returns, as the market was highly irrational, and the certification effect was losing importance. Instead, banks are expected to play a more important role in certifying the value of a given transaction in a period (the post-Lehman one, in which the financial crisis has spread) in which uncertainty becomes an important feature of the market.

METHODOLOGY

A sample of M&A transactions included in a 12-year time frame, from September 15, 2002 to September 15, 2014 has been collected. For the purposes of the analysis, the time span has been divided into two sub-periods, corresponding two symmetrical periods: the 6 previous years and the 6 years after September 15, 2008 on which Lehman Brothers was placed under bankruptcy protection. The data was collected thanks to the Zaphyr financial data provider, which contains information on M&A, IPO, Private Equity and Venture Capital transactions and relates to announcements of transactions, then completed, between companies residing in one of the eighteen countries of Europe Western, listed below: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Iceland, Italy, Luxembourg, Norway, Holland, Portugal, United Kingdom, Spain,

Sweden, Switzerland (the same 18 countries considered by STOXX Europe 600 Index⁵, or the market index which, as will be seen below, has been taken as a benchmark).

Membership in these countries is relevant for both the target and the acquirer. To this first initial sample, other criteria were then applied for selection in order to obtain a sample with desired characteristics. In particular, were excluded transactions: with a deal value of less than € 1mln and were excluded transactions where target and acquirer were not both listed. Being interested in transactions involving the transfer of control, only those in which the acquirer initially owned less than 50% of the shares were considered and reached a share of more than 50% post-acquisition. Moreover, having to study the relationship between the results of the transaction and the reputation of the advisors goes without saying that all the transactions for which the provider did not give indications of the advisor were excluded from the sample. The literature refers to these operations by defining them in-house deals (Servaes and Zenner, 1996). Finally, to avoid distortions in the results due to the particular economic situation of the most recent of the two periods observed, all the transactions involving targets or acquirers belonging to the financial services sector were cancelled from the sample.

The event study methodology

The present study is conducted experimentally and aims to fully understand the values of stock price returns recorded during the period close to the date of the transaction announcement (event window); in the following pages the following aspects will be analyzed and critically evaluated:

- Analysis of average abnormal returns and cumulative average abnormal returns with the aim of determining if they are significantly different from zero.
- Comparison of the abnormal cumulative returns of the target companies with those of the acquirer companies.
- Examination of abnormal returns, both for the acquirer companies and for the targets, in relation to the involvement of a top Financial Advisor in the execution of the transaction.

Considering that the event of interest in our analysis is the announcement of a merger or business acquisition, identifiable on a specific day, it goes without saying that the study of events was based on data with daily frequency. In order to estimate the parameters α (Alpha) and β (Beta) of every share /security, a time window, estimation window, was used before the event (announcement of the operation), in order to avoid excessive contamination deriving from the effects of the spread of any rumours on the operation. The Beta, which expresses the behaviour of a security with respect to a reference market, in statistical terms is the angular coefficient of the regression line of the yields

⁵ The STOXX Europe 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index. With a fixed number of 600 components, the STOXX Europe 600 Index represents large, mid and small capitalization companies across 18 countries of the European region

of the security in relation to the returns of the market index used as a benchmark. A Beta equal to 1 indicates that the stock moves in perfect line with the reference market (Allen, Brealey, Myers and Sandri, 2007).

The beta coefficient (β) measures the aptitude of a security to vary according to the market (systematic risk) while the alpha (α), the intercept of the regression line, expresses the aptitude of a security to vary independently from market (specific risk). In order to calculate the parameters, it was decided to use a time period of 230 days, ranging from 250 to 20 days before the event date (date of the announcement) except for some special cases in which the period in question was reduced. a few days because of the lack of financial data. This happened because the company involved in a certain M&A transaction was still unlisted when the financial data were collected. The first step in implementing the analysis was to perform a regression between the returns of a given security i and the returns of the market index m (the STOXX Europe 600). The angular coefficient β_i , is the value of the Beta, while α_i is the intercept, on the axis of the ordinates, of the regression line. Assuming a constant Beta for a given title i , we calculate the expected yield of the title i , for each day of the event window, according to the following formula:

$$1) \bar{E}_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt}$$

Where \bar{E}_{it} is the expected return at time t , R_{mt} is the daily return of the market index m at time t , $\hat{\alpha}_i$ and $\hat{\beta}_i$ parameters of the regression.

The actual yield of a security i is defined as:

$$2) R_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt} + \varepsilon_{it} \quad \text{with} \quad E(\varepsilon_{it}) = 0, E(\varepsilon_{it})^2 = \sigma_\varepsilon^2$$

Therefore, the abnormal return (abnormal return) is defined as the difference between the effective return of a security i (R_{it}), observed on the market at a particular time t (and conditioned by the particular event), and its expected return \bar{E}_{it} at the time t (not influenced by the event). Thus, the abnormal return of an i -th title at time t is given by the equation:

$$3) AR_{it} = R_{it} - \bar{E}_{it} = \varepsilon_{it}$$

Where R_{it} is the effective return of title i at time t . The abnormal return can be considered as a direct measure of the unexpected change in the wealth of shareholders in association with the event. The cumulative abnormal return (cumulative abnormal returns) of a security i is given by the sum of the daily abnormal returns observed in a given period (event window) $[t_0, t_1]$:

$$(4) CAR_{it}(t_0, t_1) = \sum_{t=t_0}^{t_1} AR_{it} = \sum_{t=t_0}^{t_1} \varepsilon_{it}$$

The average abnormal return is the average of the abnormal returns calculated for each observation, for each day t of the event window: $AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{it}$

The average of CARs is instead defined as cumulative average abnormal returns:

$$(5) \quad CAAR_i(t_0, t_1) = \frac{1}{N} \sum_{t=t_0}^N CAR_{i,t_0 t_1} = \sum_{t=t_0}^{t_1} AAR_t$$

In this section, the calculation of the CARs was based on a time window (event window) of five and eleven days (Ismail, 2010, Golubov et al., 2012). These five days include the two days prior to the announcement, the date of the announcement (the time zero) and the two days after the announcement (-2, + 2). The eleven days include the five days preceding the announcement, the date of the announcement (the time zero) and the five days after the announcement (-5, + 5). The willingness to enter data prior to the announcement is linked to the possibility of rumours that could affect stock returns. The data following the announcement instead find explanation in the possible presence of a lag between the announcement and the market reaction. To verify that the resulting CARs are statistically different from zero (ie meaningful from a statistical point of view), the statistical test t-test and its p-value are used. With the t-test it is possible to obtain a probabilistic measure regarding the coincidence of the sample average with that of the "t student" distribution. What we intend to verify, that is the null hypothesis H_0 , is:

$$H_0 : CAAR_{t_0 t_1} = 0$$

$$H_1 : CAAR_{t_0 t_1} \neq 0$$

Through the identification of the p-value it was then established whether to reject the null hypothesis or not. In the case under examination, it was decided to reject the null hypothesis with a p-value lower than the 5% level, accepting the risk of committing an error of the first species (rejecting the null hypothesis when true) with a probability of 5 %. When the p-value is lower than this threshold it is possible to say that the average of the CARs is statistically different from zero.

THE RESULTS

Let's now analyze the results of the event study and the statistical test. Generally, in the previous literature, a positive effect was found for the target while the market reaction for the acquirer was negative or not significant. According to the literature, average and positive CARs were observed for the targets and CARs in general not significantly different from zero for the acquirer companies. In the case under examination, however, it is curious to note what happens when we go to test the null hypothesis by considering different time intervals (respectively pre and post Lehman). First of all, if we consider the entire time span of our sample (ie all 226 observations), we see a strongly positive and statistically significant return for the targets and a non-statistically significant result for the purchasing companies (Table 3). In particular, we note that for the event window (-2, + 2) and (-5, + 5) the targets get, on average, a cumulated return of 4.90% and 5.61% with a p-value equal to 0,000. The average yield for the acquirers, however, does not differ significantly from zero

and the p-value (equal to 0.84 and 0.66) confirms the null hypothesis according to which the CARs are not statistically different from zero.

CARs	Test value = 0				
	Number of Observations	Average	Mean squared error	t	P-value a due code
CAR Acquirer (-2,+2)	226	-0.000500	0.03761	-0.19986	0.8418
CAR Acquirer (-5,+5)	226	-0.001417	0.04845	-0.43951	0.6607
CAR Target (-2,+2)	226	0.047601	0.08497	8.42215	4,38E-15
CAR Target (-5,+5)	226	0.056150	0.09864	8.55727	1,81E-15

Range: entire period

Table 1.

However, when we consider the sample of observations divided into the two intervals, we obtain different results. It is recalled that the 226 total observations are subdivided into 127 pre-crack observations and 99 post-crack observations. As for the targets, however, the results are not very different: Medium CARs strongly positive for both time intervals. Despite this, in detail there are slightly higher average returns for the post-crack period (Table 5) and slightly lower in the pre-crack period (Table 4) for the acquirer. This could be interpreted by alluding to greater prudence in the period of the crisis in undertaking M&A transactions; greater prudence that would have led to more detailed evaluations and greater selection in favor of the only operations that guaranteed greater synergies. On the other side, for the target we observe average returns, significant, slightly higher returns for the pre-crack period (Table 4) and slightly lower in the post-crack period (Table 5).

CARs	Test value = 0				
	Number of Observations	Average	Mean squared error	t	P-value a due code
CAR Acquirer (-2,+2)	127	-0.002185	0.02907	-0.84689	0.3987
CAR Acquirer (-5,+5)	127	-0.003649	0.04781	-0.86015	0.3913
CAR Target (-2,+2)	127	0.049870	0.08782	6.39918	2.80E-09
CAR Target (-5,+5)	127	0.061331	0.10591	6.52605	1.49E-09

Range: pre (0) post (1); Lehman bankruptcy = 0

Table 2.

CARs	Test value = 0				
	Number of Observations	Average	Mean squared error	t	P-value a due code
CAR Acquirer (-2,+2)	99	0.001661	0.04640	0.35624	0.7224
CAR Acquirer (-5,+5)	99	0.001448	0.04936	0.29183	0.7712
CAR Target (-2,+2)	99	0.044691	0.08150	5.45578	3.67E-07
CAR Target (-5,+5)	99	0.049504	0.08854	5.56293	2.30E-07

Range: pre (0) post (1); Lehman bankruptcy = 1

Table 3.

It is possible to analyze the model results also from another point of view. In particular, the average CARs and their respective significance are observed after having segmented the sample according to whether the observations correspond to deals supported by first tier banks or not (Table 7 and Table 6). On average, the targets supported by top-level investment banks show a lower performance. Specifically, the average cumulative abnormal yield for the targets passes respectively from 5.44% and 6.22%, without top-advisor, to 3.17% and 3.97% in the presence of at least one top advisor (always with a p-value of 0,000). As for the buying companies, however, we obtain p-values always higher than the level of significance of 5%. Finally, although statistically meaningless, it should be noted only indicatively that the CAR is on average positive in the case of presence of a first-tier investment bank (Table 7), and negative and statistically significant, otherwise (Table 6).

CARs	Test value = 0				
	Number of Observations	Average	Mean squared error	t	P-value a due code
CAR Acquirer (-2,+2)	137	-0.001693	0.04371	-0.45326	0.6511
CAR Acquirer (-5,+5)	137	-0.004434	0.05573	-0.93132	0.3533
CAR Target (-2,+2)	147	0.054426	0.09684	6.81413	2,31E-10
CAR Target (-5,+5)	147	0.062263	0.11084	6.81061	2,36E-10

Ranking first tier (1) second tier (0); advisor = 0

Table 4.

CARs	Test value = 0				
	Number of Observations	Average	Mean squared error	t	P-value a due code
CAR Acquirer (-2,+2)	89	0.001143	0.02571	0.41964	0.6758
CAR Acquirer (-5,+5)	89	0.002833	0.03400	0,78623	0.4338
CAR Target (-2,+2)	79	0.031765	0.05335	5.29174	1,08E-06
CAR Target (-5,+5)	79	0.039774	0.06714	5.26503	1,20E-06

Ranking: first tier (1) second tier (0) advisor = 1

Table 5.

The result that the cumulative abnormal returns are on average negative for acquirers who do not use a top-advisor is in contrast to Srinivasan (1999), who made opposing considerations but in agreement with many other studies in the literature. On the other hand, unfortunately, the p-value does not allow us to make significant considerations with regard to the opposite scenario. These univariate comparisons, however, can be misleading as they do not take into account any other variable than the advisor's reputation. As you can see in the sample description section, for example, it was found that top level advisors are used for larger transactions. Thus, both firm and deal specific variables need to be taken into account in order to verify the effective influence of the "reputation" variable on our dependent variable of interest (the abnormal yield). In this regard, multivariate standard regression models have been developed (see next section).

Regression models

This section examines the relationship between the reputation of the advisor and the CARs of targets and acquirers through the use of regression models (multivariate OLS). The central point of the analysis consists in a comparison of the models obtained for targets and acquirers considering the two symmetrical periods, extensively discussed above, corresponding respectively to the six pre and post Lehman crack years. The variables used in the regressions derive for the most part from the previous literature. Regarding the dependent variable, we chose to use the CARs, expressed as a percentage, calculated over a time horizon of five and eleven days, corresponding to the event windows $(-2, + 2)$ and $(-5, + 5)$. This choice partly reflects the methodology used in recent studies by Ismail, (2010) and Golubov et al. (2012). The following are the independent variables considered:

- **First level:** this is the variable of greatest interest for research. It is a dummy variable that has a value equal to one when an investment bank, which supported a company in a transaction of the sample, is among the top ten positions of the classification of the investment banks. This variable is considered twice, once for the acquirer and once for the target (First level Acquirer and First level Target);
- **First vs second:** this variable, the only one that assumes different values depending on whether the model refers to the behavior of the target rather than the acquirer, is a dummy variable that assumes a value equal to one when we are faced with a situation in which one of the counterparties has at least one first level advisor while the other party has only second tier advisors. When both counterparties use at least one reputable advisor, the variable has a value of zero.;
- **Same country:** this is a dummy variable that has a value equal to one when target and bidder reside in the same country. Doukas and Travlos (1988) found evidence of abnormal returns positive in their studies in cases of international acquisitions (cross-border);
- **Deal value:** the value of the transaction. It is a continuous variable, the deal value could indicate the complexity of the operation. Transactions of a relatively larger size are considered by literature the most complex;
- **Same sector:** it is a dummy variable that has a value equal to one when target and bidder, involved in a particular extraordinary finance operation, operate in the same macro-sector. In this regard, it is recalled that Morck, Shleifer and Vishny, (1990) showed that the creation of value for the buying companies is greater in cases where the target operates in the same business related to that of the acquirer. Later Berger and Ofek (1995) argued that sector diversification generally destroys value;
- **Cash or share:** it is a dummy variable that has a value equal to one when the percentage of the payment in cash is greater than that of shares. The market reaction is therefore assumed to be

better in the case of cash payments. One explanation comes from the fact that cash deals are usually associated with debt issuance, which encourages management to be more disciplined;

- **Total advisor number:** variable that corresponds to the total number of first-tier investment banks involved in the supporting transaction, either of a target or a buyer. From the presence of a very large number of investment banks belonging to the first category, we can deduce a greater complexity of the deal;
- **Relative size:** it is the ratio between the total assets of the target and the total assets of the acquirer. Since the integration of a relatively large target, during an acquisition/merger, most likely involves a greater internal struggle for the allocation of capital to the various divisions, a negative relationship is expected between that variable and the cumulative abnormal returns (Rajan, Servaes, and Zingales, 2000);
- **ROE acquirer:** is an index of profitability of the acquiring company's own capital. It expresses, in a nutshell, the economic results of the company. It is a percentage index for which the net income produced is compared to the net capital.
- **ROE target:** as already specified, it is an index of return on equity of the target company;
- **Debt acquirer:** it is the ratio between the indebtedness and the total assets (total assets), that is to say the total value of the assets included in the balance sheet assets. The solidity of the company grows as the ratio decreases, the economic literature shows that the ideal value of debt ratio should not greatly exceed the value of 0.5.
- **Debt target:** it is the ratio between the total debt of the target and the total assets of the same.

Interpretation of multivariate OLS results

As this work focused on both the counterparts of an M&A operation, the analysis and interpretation of the regression models were divided into two sections: target and acquirer. For both types of companies involved in a merger or acquisition, it has been verified whether the creation of value, at the announcement of M&A transactions, is linked to the reputation of the bank supporting the deal and how this phenomenon varies between the period precedent and the period following the bankruptcy of Lehman Brothers. The proxy of value creation considered, the dependent variable, corresponds to the cumulative abnormal returns (CARs), also used in the previous literature, calculated according to the market model methodology, over a five-day time window as in the recent Ismail studies (2010) and Golubov et al. (2012).

Target

The regression model for the CARs (-2, +2) corresponding to the pre-crack period Lehman (Scheme 1) consists of 121 observations and 13 independent variables. The R^2 is equal to 28.03% (the

adjusted R² is 19.29%) and the model as a whole is very significant. The test F, which measures a link between the complex of the selected variables and the dependent variable, has an associated p-value close to zero (0.000424). Enclosed you can see the results on the CARs (-5, + 5) (Schemes Appendix 7, 8, 9), it was not considered necessary to comment on them in full as they show results that match the CARs analysis (-2, + 2). Analyzing the significance of the variables, we observe that four of the thirteen variables considered are significant. These are the variables First Level Acquirer Relative Size, ROE Acquirer and ROE Target respectively significant to 10%, 10% to 1% and 5%, to be noted that all significant variables have a negative coefficient. In particular, the negative coefficient of the First Acquirer variable indicates that, in the acquisitions where the acquirer is assisted by a first-level financial advisor, the return for the target's shareholders is reduced by 5.44%, which highlights the strengthened position of the buyer company under negotiation. This may derive from the fact that the advisor, facilitating a greater availability of information, reduces any problems of information asymmetries and allows the acquirer to arrive at a better and more correct evaluation of the target.

Variable	Coefficient	Error Std	Statistic t	p-value	
Const	0.122667	0.03271	3.7496	0.00029	***
First Level Acquirer	-0.054418	0.02779	-1.9580	0.05284	*
First Level Target	-0.000333	0.02798	-0.0119	0.99050	
First vs Second	-0.040117	0.03317	-1.2092	0.22926	
Same country	-0.013744	0.01689	-0.8135	0.41774	
Deal value	-9.30594e-010	1.43017e-09	-0.6507	0.51664	
Same sector	-0.026110	0.02238	-1.1663	0.24607	
Cash or Share	-0.008723	0.02342	-0.3725	0.71029	
T Advisor number	0.011046	0.01580	0.6988	0.48622	
Relative Size	-0.036751	0.02062	-1.7817	0.07763	*
ROE Acquirer	-0.064974	0.02089	-3.1094	0.00240	***
ROE Target	-0.051731	0.02227	-2.3220	0.02213	**
Debt Acquirer	-0.029389	0.05604	-0.5244	0.60108	
Debt Target	0.036725	0.05721	0.6419	0.52231	

Average of the dependent variable = 0.0517419

Mean square deviation of the dependent variable = 0.0889162

Sum of squares of residues = 0,682776

Standard residual error = 0,0798817

R² = 0,280327

R² adjusted = 0,19289

Statistic F (13, 107) = 3,20604 (p-value = 0,000424)

Log-Likelihood = 141,54

Akaike information criterion = -255,08

Bayesian criterion of Schwarz = -215,939

Hannan-Quinn criterion = -239,183

Table 6.

The coefficient of the variable *Relative Size* indicates a negative relationship between this variable and the cumulative abnormal returns, as the size of the target increases, the difficulty of

incorporating it within the purchaser or the economic group that the latter represents increases. Operations involving the acquisition of control and/or the integration of a relatively large target with respect to the acquirer are more complex and lead to an inferior creation of value. This variable is significant at 10%, in fact the value of the p-value is equal to 0.07763.

The most significant variable, with a p-value of 0.24%, is ROE Acquirer. The value of the negative coefficient (equal to -6.49%) indicates that the profitability of the acquiring company is negatively correlated with the CARs of the target company. Moreover, even the ROE Target is significant with a negative value, this result, at first glance a little rare, may be due to the fact that sometimes the acquiring companies complete non-optimal transactions, and are willing to pay a higher price to the shareholders of the target in order to take control of it.

Finally, it is to highlight how the multivariate regression related to the time interval preceding the Lehman crack shows some evidence for which it can be said that the identity and reputation of the investment bank is an important variable in determining the reaction of the market and the related value creation for the target when M&A transactions are announced.

Moreover, the result is in agreement with the analysis carried out on the CARs. In fact, from the comparison between the tables (Table 8 and Table 9) illustrated below, it is possible to notice that the average of the CARs varies in the transition from a pre-crisis scenario without top advisor to a pre-crisis scenario with top advisor.

With reference to the same time frame considered in the regression model, targets supported by a top investment bank obtain average abnormal cumulative returns of 3.65% (-2, + 2) and 4.69% (-5, + 5), around 34.93% lower and 29.26% lower than the CARs average in the absence of at least one top advisor. This is an important result and finds a tendency in contrast to some of the previous studies.

	Entire period	Pre crisis	Post crisis
CAAR (-2,+2)	0.0318	0.0365	0.0221
CAAR (-5.+5)	0.0398	0.0469	0.0252

Target advisor = 1

Table 7.

	Entire period	Pre crisis	Post crisis
CAAR (-2,+2)	0.0544	0.0561	0.0527
CAAR (-5.+5)	0.0623	0.0663	0.0582

Target advisor = 0

Table 8.

Instead, the results of the regression model and of the CARs analysis with reference to the post-crack time period are different (Scheme 2), that is the period of the "financial crisis". In the post Lehman period, in fact, there is a different scenario. First of all, note how the R^2 gets worse,

reaching 16.85%. It should be noted that, as the R^2 decreases, the adjusted R^2 decreases from 19.28% to 2.24% significantly.

Specifically, the model relating to the period following 2008 as a whole is not significant. The F test on the combined significance of the regression coefficients is equal to 1.153, with an associated p-value equal to 0.331.

Analyzing the significance of the variables, it should be noted that only one of the thirteen variables considered, ie ROE Target, is significant with a p-value of 5.49%. The value of the positive coefficient equal to 0.048 indicates that the profitability of the target company is positively correlated with the CARs thereof.

Table 9. Model: OLS estimates using 88 observations from 1-99

Variable	Coefficient	Errore Std	Statistic t	p-value	
Const	0.061884	0.044733	1.3834	0.17070	
First Level Acquirer	-0.012915	0.043486	-0.2970	0.76730	
First Level Target	-0.020550	0.047771	-0.4302	0.66832	
First vs Second	0.005713	0.051083	0.1118	0.91125	
Same country	0.030223	0.023435	1.2897	0.20118	
Deal value	-1.86215e-09	6.20846e-09	-0.2999	0.76507	
Same sector	-0.005735	0.035152	-0.1632	0.87083	
Cash or Share	-0.002672	0.035768	-0.0747	0.94063	
T Advisor number	0.005235	0.028474	0.1839	0.85463	
Relative Size	-0.017462	0.010862	-1.6075	0.11220	
ROE Aquirer	-0.035514	0.023176	-1.5324	0.12970	
ROE Target	0.048866	0.025052	1.9505	0.05490	
Debt Acquirer	-0.035099	0.053152	-0.6604	0.51108	
Debt Target	-0.050316	0.040201	-1.2516	0.21466	

Average of the dependent variable = 0,0458727

Mean square deviation of the dependent variable = 0,0825541

Sum of squares of residues = 0,493016

Standard residual error = 0,0816234

R^2 = 0,168495

R^2 adjusted = 0,0224202

Statistic F (13, 74) = 1,15348 (p-value = 0,331)

Log-Likelihood = 103,254

Akaike information criterion = -178,507

Bayesian criterion of Schwarz = -143,825

Hannan-Quinn criterion = -164,535

Having said that, in this new scenario, it is important to underline how the model does not indicate any effect between the reputation of the investment bank (advisor) on the cumulative abnormal returns (CARs) of the target. Moreover, the result is in agreement with the analysis carried out on the CARs. In fact, from the comparison between the tables (Table 8 and Table 9) illustrated above, it can be seen that the average of the CARs varies in the transition from a post-crisis scenario without top advisor to a post-crisis scenario with top advisor. With reference to the same time frame considered in the regression model, targets supported by a top investment bank obtain average abnormal

cumulative returns of 2.21% (-2,+2) and 2.52% (-5,+5) , around 58.60% lower and 56.70% lower than the CAR average in the absence of at least one top advisor. However, the fact that this positive contribution is not even found in the post-crisis sample generates food for thought.

Acquirer

As for the buying companies, it is right to remember how the literature before Golubov et al. (2012) was struggling to highlight a positive relationship between the advisor's reputation and the creation of value through mergers and acquisitions. The innovation of the scholars, in the recent work, was that of carrying out a verification for the cases of only transactions between listed companies, or excluding the cases in which the acquirer was preparing to acquire unlisted targets. As in the case of the target analysis, also for the acquirer companies there are two very different results depending on whether the model refers to the pre- or post-Lehman crack period. Specifically, the model relating to the period before bankruptcy (Scheme 3), as a whole, is not significant. Enclosed you can see the results on the CARs (-5, +5) (Schemes Appendix 10, 11,12), it was not considered necessary to comment on them in full as they show results that match the CARs analysis (-2, +2).

The *F test* on the combined significance of the regression coefficients is equal to 0.541661, with an associated p-value equal to 0.893. However, it is also not possible to link this phenomenon to a sample size problem with respect to the relatively large number of predictors considered, since, similarly to the case of targets, the generally accepted historical rule is met, for which at least 10 are required. subjects per predictor (Harris, 1985). Similarly to the scenario observed for the targets, even in the case of acquires the multivariate regression model suggests that the advisor's reputation is not an extremely important factor in influencing the creation of value for shareholders.

Table 10. *Model: OLS estimates using 121 observations from 1-127*

Variable	Coefficient	Errore Std	Statistic t	p-value	
Const	0.001159	0.011373	0.1020	0.91899	
First Level Acquirer	0.016943	0.011637	1.4559	0.14834	
First Level Target	-0.006512	0.010099	-0.6449	0.52040	
First vs Second	-0.007054	0.011683	-0.6038	0.54724	
Same country	0.003519	0.006083	0.5785	0.56412	
Deal value	7.24901e-010	5.10937e-010	1.4188	0.15887	
Same sector	-0.008366	0.006790	-1.2321	0.22063	
Cash or Share	0.000320	0.007537	0.0426	0.96614	
T Advisor number	-0.004924	0.005700	-0.8639	0.38956	
Relative Size	0.003159	0.007324	0.4314	0.66705	
ROE Acquirer	-0.000482	0.007397	-0.0653	0.94807	
ROE Target	0.001729	0.007923	0.2182	0.82765	
Debt Acquirer	-0.007570	0.019908	-0.3803	0.70449	
Debt Target	0.000586	0.020298	0.0289	0.97699	

Average of the dependent variable = -0.00163449

Mean square deviation of the dependent variable = 0.0276782

Sum of squares of residues = 0.0862537

Standard residual error = 0.0283921

R² = 0.0617459

R² adjusted = -0.0522476

Statistic F (13, 107) = 0.541661 (p-value = 0.893)

Log-Likelihood = 266.707

Akaike information criterion = -505.414

Bayesian criterion of Schwarz = -466.272

Hannan-Quinn criterion = -489.517

In the case of pre-Lehman acquirers there is no empirical evidence that advisor reputation plays an important role in determining value creation for shareholders. The result, among other things, is also confirmed by the T-test carried out on the CARs segmenting the sample both with respect to the period and the presence or absence of an advisor. The output referring to the post-crack period (Scheme 4), on the other hand, assumes particular importance. Compared to the previous model, in this case both the R² and the adjusted R² increase considerably and take on relevant values. In particular, the R² goes from 6.17% to 29.81% while the adjusted R² from -5.22% to 17.49%. Furthermore, the model as a whole is associated with a p-value below the 1% threshold.

Looking at the coefficients of the variables that are significant, we note the positive coefficient of the *Same country* variable, which shows that the creation of value for the acquiring company is greater in cases where the target operates in the same nation of the acquirer. The coefficient of the variable *Relative Size* indicates a positive relationship between this variable and the cumulative abnormal returns, as the size of the target increases, the difficulty of incorporating it within the purchaser or the economic group that the latter represents is recurring. Operations that involve the acquisition of control and / or the integration of a relatively large target with respect to the acquirer are complex memos and lead to a higher value creation. These results are contrary to those found in the case of

the pre-crisis target society. This variable is significant at 1%, in fact the value of the p-value is equal to 0.00004.

Table 11. *Model: OLS estimates using 88 observations from 1-99*

Variable	Coefficient	Error Std	Statistic t	p-value	
Const	-0.026627	0.019074	-1.3960	0.16690	
First Level Acquirer	-0.009757	0.028693	-0.3401	0.73478	
First Level Target	-0.007736	0.019999	-0.3868	0.69999	
First vs Second	0.018383	0.023326	0.7881	0.43315	
Same country	0.023553	0.012156	1.9376	0.05649	*
Deal value	-9.18036e-010	3.22632e-09	-0.2845	0.77679	
Same sector	-0.003224	0.013289	-0.2427	0.80894	
Cash or Share	0.004676	0.014207	0.3292	0.74296	
T Advisor number	0.008010	0.014925	0.5367	0.59308	
Relative Size	0.024847	0.005661	4.3885	0.00004	***
ROE Acquirer	-0.020538	0.011979	-1.7145	0.09062	*
ROE Target	-0.002285	0.013055	-0.1751	0.86150	
Debt Acquirer	-0.001118	0.026846	-0.0416	0.96689	
Debt Target	-0.012712	0.021126	-0.6017	0.54919	

Average of the dependent variable = 0.00306593

Mean square deviation of the dependent variable = 0.0468491

Sum of squares of residues = 0.13401

Standard residual error = 0.0425552

R2 = 0.298194

R2 adjusted = 0.174904

Statistic F (13, 74) = 2.41863 (p-value = 0.00887)

Log-Likelihood = 160.569

Akaike information criterion = -293.138

Bayesian criterion of Schwarz = -258.456

Hannan-Quinn criterion = -279.166

Moreover, even the *ROE Acquirer* appears to be significant, with a negative coefficient value, this result, at first glance strange, may mean that, sometimes, the companies with high ROE levels may achieve non-optimal operations, that would reduce the profitability of equity capital. Consistent with the literature, which attributes to the target the majority of the benefits of an operation, it is not surprising that the value creation enjoyed by the acquirer, availing itself of a leading investment bank, is considerably lower than that of the target. This evidence is also supported by what emerges from the CARs t-test (Table 22 and Table 23).

	Entire period	Pre crisis	Post crisis
CAAR (-2,+2)	0.0011	0.0009	0.0017
CAAR (-5,+5)	0.0028	0.0015	0.0058

Acquirer advisor = 1

Table 12.

	Entire period	Pre crisis	Post crisis
CAAR (-2,+2)	-0.0017	-0.0053	0.0016
CAAR (-5,+5)	-0.0044	-0.0089	-0.0003

Acquirer advisor = 0

Table 13.

A noteworthy finding was to highlight that the CARs of the acquirers who availed themselves of a top investment bank recorded a better performance. This last result was recorded both for the pre- and post-crisis periods; naturally, it must be pointed out that the intensity of this difference was not statistically significant and different from zero. Furthermore, in the appendix, it is possible to consult the results of the regression models obtained on the CARs for the entire time span of the twelve years taken into consideration (Figure 5 and Figure 6). From an initial analysis it is clear, clearly, that none of the independent variables relating to the advisor's role is stochastically significant. In particular, no relationship can be found between the abnormal returns obtained and the explanatory variables of the consulting work performed by the first level investment banks.

CONCLUSIONS

At the end of the research work on M&A, we can draw the first conclusions on the analysis conducted. Firstly, the first conclusion that comes out of sight is that, in the two pre- and post-bankruptcy periods of Lehman Brothers, top investment banks are not significantly associated with better service and greater value creation for shareholders. In the six years preceding the crisis, targets backed by a top investment bank get average abnormal cumulative returns of 3.65% (-2,+2) and 4.69% (-5,+ 5), less than approximately 34.93% and 29.26% compared to the CARs average in the absence of at least one top advisor. This result, in contrast to a large part of the economic literature, is also found on the post-crisis sample. Specifically, the fact that this positive contribution of the top investment banks is not found even in the post-crisis sample should generate important food for thought.

On the other hand, in the case of acquirer companies, the results that emerge appear to be absolutely in contrast with those of the target companies. An important result was to highlight that the CARs of the acquirers who availed themselves of a top investment bank recorded a better performance. This last result was recorded both for the pre- and post-crisis periods; naturally, it must be pointed out that the intensity of this difference was not statistically significant and different from zero.

It should also be remembered that such a divergence between the results obtained before and after the crisis could be linked to distortions deriving from choices made during the mapping of the

analytical sample. In this section it is therefore opportune to dwell on the main limits found in the empirical research conducted. The results obtained must be contextualized within the time frame in which the analysis is concentrated, within the geographical area of reference and the type of company considered. It is reasonable to remember that a larger sample, in terms of geographical location, type of society considered and a longer time span, would lead to conclusions that are very far from those identified up to here. However, despite an increase in the number of deals taken into consideration may lead to a more robust result, our sample consists of 226 transactions and is therefore to be considered sufficiently heterogeneous and complete.

In this sense, a critical element to be found is that the involvement of the investment banks does not end with the publication date of the transaction but is continuous and covers the entire time period in which the deal remains open. In addition, the analysis conducted emphasizes on deals that have been concluded and does not take into account those transactions that have not actually been finalized: this is why most of the targets have been delisted as a result of the transaction. A sample that includes not only the deals actually concluded could lead to further results.

To go beyond from the empirical analysis of this research, which has led to the aforementioned results, it is interesting to advance further reflections that can stimulate new studies and in-depth analysis of the topic. First of all, it is important to bear in mind that the crisis in the global financial system has helped to redesign and change the rules of the game within investment banking. The evolution of a new system based on new logic and on more stringent rules systems, will probably lead to a new equilibrium that today it is difficult to imagine with certainty. Moreover, in order to survive in an increasingly competitive arena, reputational capital, historically a powerful marketing tool for business banks to influence the choice of advisor by potential client companies, is destined to play an increasingly important role. and must also be fed to the detriment of profitability. A market trend that supports this hypothesis is the downward war on the fees required for investment banking services. Among the drivers of the choice of the advisor in times of crisis, the companies must necessarily consider the remuneration requested by the investment banks. The decline in the number of transactions in the period of the crisis thus pushes the investment banks who want to maintain their leadership position, in terms of market share, to ask for very low commissions in order to be credited in the league tables a greater value of the processed transactions.

A starting point for investigating the issues related to investment banking and a natural continuation of the research carried out can therefore be linked to studies concerning new drivers that support the choice of advisor and/or research that analyzes the trend of fees requested by top advisors. Moreover, it seems that the investment banks that enjoy the possibility, at least on paper,

to directly provide financing to support extraordinary finance transactions are climbing the peaks of the league tables. Access to credit and the ability of the advisor to provide adequate financial resources to complete a given transaction may, in fact, have become more important in a context of credit crunch and slow recovery in trade. Further researches that consider these variables, in addition to being of great relevance, would certainly make an important contribution in expanding the literature on extraordinary finance transactions.

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APPLICATION OF NEURO-MARKETING TECHNIQUES TO THE WINE TASTING EXPERIENCE

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ABSTRACT

Neuro-marketing (neuroscience applied to marketing aims) has been already used for evaluating consumers' preferences within the food and agricultural sector (Cherubino et al., 2017), in food tasting and olfaction experiments (Di Flumeri et al., 2016, 2017), as well as in the wine tasting (Horska E., et al, 2016). Aim of this pilot study is to investigate whether or not the sense of olfaction represents a statistically significant variable in the experience of wine tasting. In order to do so, the research has envisioned an experimental protocol that takes into account methods and techniques typical of the neuroscience: an electroencephalographic index, assumed as an indicator of approach or withdrawal (AW) motivation (Davidson et al. 1990), and an autonomic index (Emotional Index – EI), deriving from the matching of heart rate and galvanic skin response activity - considered an indicator of emotional involvement (Vecchiato et al., 2014). The experiment has provided the degustation of two types of Italian wines, and the process has been divided in two phases as well: smell and tasting (tasting that, in turn, has been subdivided in the phases: tasting with Open Nose and tasting with Closed nose). Results of this pilot research showed a statistically significant increase of the EI values in correspondence of the wine smelling phase in comparison with the other two phases of tasting with and without olfactory component (Smell phase ($p < 0.01$) and a trend of major approach attitude in correspondence of wine tasting with the olfactory component in comparison to the others two conditions.

Keywords: neuro-marketing, wine, aroma, emotion, pleasantness, product experience.

1. INTRODUCTION

Food companies and wine producers are operating in an highly competitive market, where only enterprises capable of retaining and improving their position, as well as reaching high production process efficiency (Bielik & Hupkova 2011; Raz et al. 2008) are able to survive. To thrive and match customers' preferences, though, these companies' marketers also need to understand their consumers'

behaviour, so they continuously try new tactics and methodologies able of influencing and assessing this behaviour.

In such a context, neuro-marketing is a new-born discipline that permits to study the consumers' perception about the product, as well as the customer experience (Horska E., et al, 2016), by watching what happens in the human brain and body, through techniques typical of the neuroscience - like the electroencephalogram (EEG), the heart rate (HR) and the galvanic skin reaction (GSR): altogether, these techniques have given birth to the so-called "autonomic indexes" (e.g. Emotional Index – EI, approach or withdrawal motivation - AW) that let marketers understand whether or not the consumer has been "sensitive" to the product/service. Neuro-marketing, thus, allows the abovementioned companies to create a positive emotional connection between the customers and their brand(s), product(s), point(s) of purchase (Malär et al. 2011) and understand the factors that contribute to the consumers' buying decisions, among which there is the Perceived Value of the product/service and the Pleasantness and Emotion arisen when using/experiencing it.

2. WINE MARKETING AND NEURO-MARKETING

In fact, wine marketing is an area where not only the economic, but also the non-economic factors - such as emotions and hidden reactions of a customer - play a decisive role. Even in the modern times, when it seems that the economic indicators are of great importance and affect both business and consumer decisions (Bielik, 2014), still exist other values that can affect choosing a bottle of wine: for instance, making a good impression during special occasions, (hedonistic values) or, according to Olsen et al. (2012) caring about the planet (environmental values). The affect that the consumers experience also cannot be adequately measured by the self-reported verbal indicators, due its complexity (Zajonc 1980; Panksepp 1998; Davidson 2004). Therefore, neuro-marketing methods are meant to measure the hidden and inexpressible, unconscious consumer reactions at the process of buying - but also consuming - certain products. In particular, when it comes to wine – especially high-value wines, which are considered a luxury item – the consumers' preferences are based on the following aspects: a) Representation and Attention, b) Predicted Value, c) Experienced Value, and d) Remembered Value and Learning (Plassmann, Ramsøy & Milosavljevic, 2012). The first two parameters mostly refer to the extrinsic features of a bottle of wine – typical of the marketing discipline - as in, for instance: the label or the provenience and production information, which can influence the intention-to-buy (Sáenz-Navajas, Campo, Sutan, Ballester & Valentin, 2013) with the so called "country-of origin-effect", as well as the customers' willingness to pay (Vecchio, 2013). In fact, Reimann, Zaichkowsky, Neuhaus, Bender & Weber (2010) found out that aesthetics and brands/labels can influence consumers' perceptions of reward – thus stimulating their appreciation of the product/service. The second two parameters above

mentioned (experienced and remembered value) fall within the category of the “wine intrinsic features”, which arouse a chemosensory stimuli (Small, 2012) within the body of a person undergoing wine tasting: that is the already mentioned Experienced Value. These wine intrinsic features are the following: texture, volatile composition - which finds expression in the “wine aroma and bouquet” - and colour. For what regards the volatile composition, it is obvious that olfaction is the most involved sense when tasting a wine and smelling its aroma or bouquet: not by chance, for the wine testing, sommeliers typically use both gustation and olfaction - the latter through a direct olfactory stimulation (by the nose) and a retro-nasal pathway (accomplished by air inhalation while swirling the wine around in the mouth). The variable of olfaction during an eating or drinking experience has also interested neuroscientists (Kohler et al. 2007), who have focused on the relationship between emotion and odour, finding out that - like emotions - odours may have a positive (appetitive), negative (aversive) or neutral valence: these close connections are related to cerebral substrates common to the two. As a result, assessing the contribution of the olfaction during the process of wine tasting is essential in order to study the consumers’ perception of its aroma (which leads to the construction of the Experienced Value). This is the frame where this pilot study is collocated: its aim is to investigate the reaction to the smell of wine and its degustation, with and without the direct contribution of the olfaction.

3. METHODOLOGY

The experiments, conducted in September 2017 in the Industrial Neuroscience Laboratory of Sapienza University of Rome, measured the brain activity and the emotional engagement of individuals during a degustation of two types of Italian wines: *Sangiovese* and *Morellino di Scansano*. The techniques and indices utilized have been: the electroencephalographic index, assumed as an indicator of approach or withdrawal (AW) motivation (Davidson et al. 1990), and the emotional involvement (EI), deriving from the match of heart rate (HR) and galvanic skin response (GSR) activity (Vecchiato et al. 2014). The AW index has been already applied to the food tasting (Di Flumeri et al. 2017) and odor (Di Flumeri et al., 2016; Kim & Watanuki, 2003; Henkin & Lect, 2001). With regard to the emotional index, a list of 16 emotional words has been defined by a behavioural categorization study using the model of circumflex affect (Russel & Barrett, 1999); the words were in fact classified on the basis of pleasantness/unpleasantness and arousal (high/low) describing the wine tasting (Ferrarini et al. 2010). The IE was previously applied, instead, in neuro-marketing studies on advertising (Cherubino et al. 2016a,b) and antismoking public service announcement (Cartocci et al. 2017), supporting the appropriateness of its use to product testing. Participants to the experimental tests were 6 non-professional wine-tester subjects, balanced for gender, with an average age of 37.5 ± 15.52 .

4. EXPERIMENTAL DESIGN

The experimental procedure consisted in a total of four wine tests: after smelling every type of wine – each for 10 seconds - the testers were asked to taste it, by drinking from the glass, and to keep it into their own mouth for 10 seconds before swallowing (Fig.1). They repeated the latter operation twice: the first time in an Open Nose condition and the second time in a Closed Nose condition. Wines were randomly assigned to the participants, served at room temperature - so as to avoid unwanted temperature-related effects (Craig et al. 2000) and in the quantity of 20 ml for each test (before each trial, participants were told to drink a glass of water, in order to wash their mouth from the previous flavor).



Figure 1. The picture represents one of the participants equipped with the EEG band on the forehead and the autonomic sensors on the fingers during one of the wine tasting trial.

4.1 - EEG Recording and Signal Processing

The EEG signal was recorded Hz by the BrainVision LiveAmp amplifier (Brain Products GmbH), with a sampling frequency of 250 by 8 EEG electrodes (Fp1, Fpz, Fp2, AF3, AFz, AF4, ground and reference), following the 10-20 International System, and the impedances were kept below 10 k Ω . Each EEG trace was then converted into the EEGLab format in order to perform signal preprocessing such as artefacts detection filtering, and segmentation. The EEG signals have been pass filtered at 2-30 Hz and depurated of ocular artifacts, by using the independent component analysis (ICA). The individual alpha frequency (IAF) has been calculated for each subject in order to define four bands of interest, according to the method suggested in the literature (Klimesch, 1999). Such bands were reported in the following as IAF+, where IAF is the Individual Alpha Frequency, expressed in Hertz, and is an integer displacement in the frequency domain, which is employed to define the band ranges. In particular, we focused the present analysis on the alpha bands (IAF-4, IAF+2). To summarize the activity from all

these electrodes, the Global Field Power (GFP) was computed. This is a measurement introduced by Lehmann and Skrandies (1980) to summarize the overall activity over the scalp surface. GFP is computed from the entire set of electrodes by performing the sum of the squared values of the EEG potential at each electrode, resulting in a time-varying waveform related to the increase or decrease of the global power in the analyzed EEG. The cerebral appreciation has been monitored in the target population by using the Approach-Withdrawal index, according to the theory related to the EEG frontal asymmetry theory (Davidson, 2004). The AW index is correlated to the unbalance of the right and left prefrontal activity. The formula that has been used is the following:

$$AW = GFP_{\alpha_right} - GFP_{\alpha_left}$$

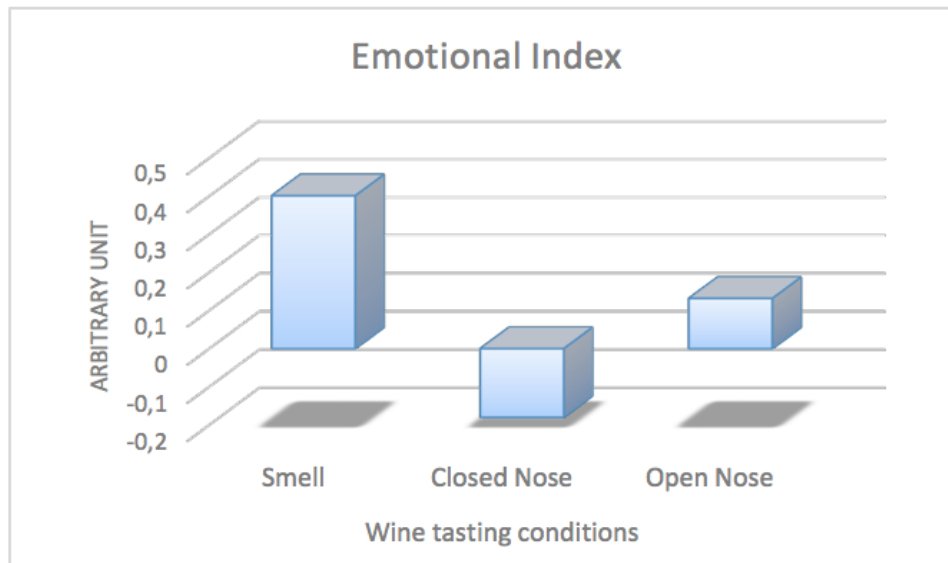
Where the GFP_{α_right} and GFP_{α_left} stand for the GFP calculated among right (Fp2, AF4) and left (Fp1, AF3) electrodes, in the alpha band, respectively. The waveform of AW cerebral index has been estimated for each second and then averaged for all the duration of the stimuli. The AW index was then standardized according to the baseline EEG activity acquired at the beginning of the experiment. Positive AW values mean an approach motivation toward the stimulus expressed by the subject, while negative AW values a withdrawal tendency. The AW index was in fact normalized returning a z-score values across all the experiment for each subject. In fact, such index has been defined by taking into account the frontal EEG asymmetry theory by Davidson and colleagues (2004).

4.2 - The Autonomic data recordings and signal processing

The Blood Volume Pulse (BVP) and Galvanic Skin Response (GSR) have been recorded with the Shimmer System (Shimmer Sensing, Ireland) with a sampling rate of 52 Hz. For the recording of these signals, three were placed to the palmar side of the middle phalanges of the second and third fingers, on the non-dominant hand of the participant, according to already published procedures (Boucsein et al. 2012). In order to obtain the Heart Rate signal from the BVP, it has been used the Pan-Tompkins algorithm (Pan & Tompkins, 1985). The constant voltage method (0.5V) was employed for the acquisition of the skin conductance and by using the LEDA lab software (Benedek & Kaernbach, 2010), the tonic component of the skin conductance (Skin Conductance Level, SCL) was estimated. In order to match GSR and HR signals producing a mono-dimensional variable which returns the emotional state of subjects, the Emotional Index has been defined by taking into account the GSR and HR signals (Vecchiato et al. 2014). We refer to effects plane (Russell & Barrett, 1999; Posner et al. 2005) where the coordinates of a point in this space are defined by the HR (horizontal axis) and the GSR (vertical axis). Several studies have highlighted that these two autonomic parameters correlate with valence and arousal, respectively (see Mauss & Robinson, 2009 for a review). The interpretation of the EI implies that the higher the value the more positive the emotion experienced by the subject and vice versa.

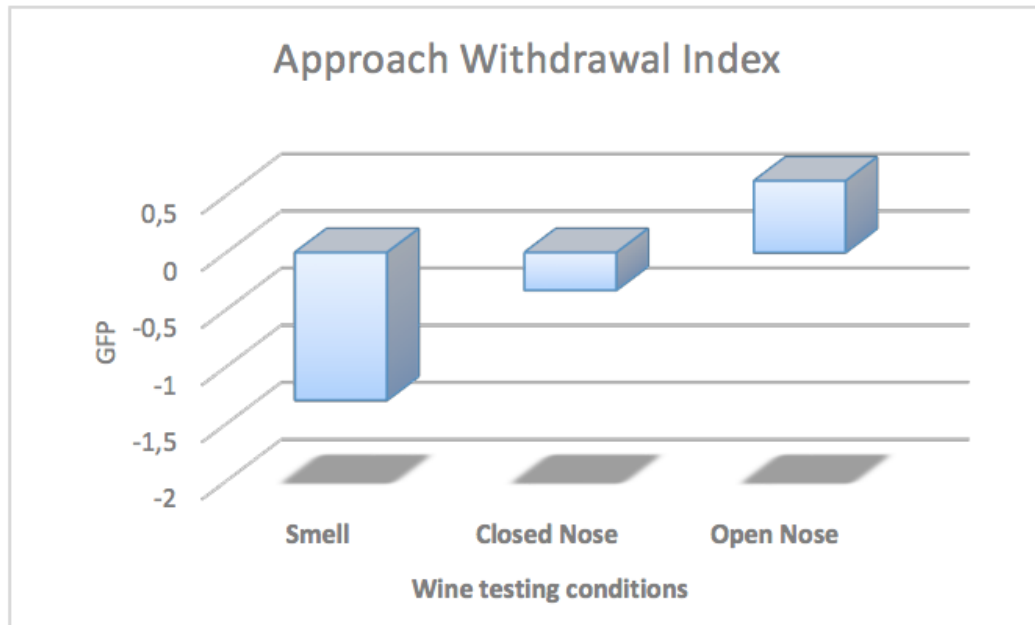
5. RESULTS

Results of the research showed: 1) a statistically significant increase of emotion (EI values) in correspondence of the smelling phase (Graph 1)



Graph 1. The graph shows the average EI values reported by the experimental group in the three wine tasting conditions (Smell, Closed Nose, Open Nose).

2) a trend of major pleasantness/approach attitude (AW values) in correspondence of wine tasting in an Open Nose condition. However, here there is not statistical significance, due the relative high variance of the estimates. The AW Index results provided evidence of a trend characterized by the Approach tendency, in the condition where people taste the wine with the Open Nose, while a tendency of Withdrawal in the condition without the contribution of olfaction (Closed Nose) and during the smell phase (Graph 2).



Graph 2. The graph shows the average AW values reported by the experimental group in the three wine tasting conditions (Smell, Closed and Open Nose).

6. DISCUSSION

The importance of the variable “olfaction” during the tasting experience has been already intuitively proven by the fact that people are not recommended to drink wine when they have cold (the closed nose decreases the pleasure of drinking). The present data numerically support such old observation: in this study there is a clear interaction between the two sensory modalities of taste and olfaction, since it was observed an increased emotional and cognitive appreciation of the wine tasting experience with the Open Nose when compared to the Closed Nose condition. Thus, both emotional and cognitive appreciations were increased on average by allowing the volatile substances of the wine to proper target the olfactory areas. On the other hand, it is interesting to note that, indeed, the Smell condition produced in the participants a higher Emotional Involvement (EI), suggesting a parallel intense emotional reaction to such condition.

7. CONCLUSIONS

From this exploratory analysis, it can be stated that - in the wine tasting experience - olfaction is a significant variable, which could be investigated in further studies aimed at identifying emotional and cognitive aspects of the wine degustation itself. For instance, it would be interesting to further investigate the extrinsic properties of the wine by the EI and the AW neurophysiological indicators – since previous scientific studies have proven that the “experienced emotion” for the wine smell tasting

results from intrinsic properties (such as the molecular composition of a drink) and the personal state (for instance, being thirsty: see Allison & Uhl, 1964), together with extrinsic properties of products (such as price): Plassman and colleagues (2008) found out that the variation of price of wine affects the bold activity in the medial orbitofrontal cortex, an area associated to primary taste. In conclusion, overall it can be stated that the achieved results confirm neuro-marketing being a useful tool in helping wine producers and sellers at offering products that can match at the best their customers' expectations.

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FACTORS AFFECTING INNOVATION PERFORMANCE

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ABSTRACT

The aim of this study is to empirically investigate the impact of specific factors on various dimensions of innovation management. The contribution of this research is important because it attempts to shed some light on the way several firm related factors are related to innovation management. A new theoretical framework has been designed and empirically tested using data from one hundred and thirty five Greek SMEs firms. Four hundred and twenty-six employees from these firms have participated answering a structured questionnaire. The results of the Structural Equation Analysis revealed that both Organizational Innovation and Innovation Performance affect Organizational Performance. Furthermore, Strategic Innovation Orientation, R&D, Knowledge-oriented Dynamic Capabilities, Organizational Learning Practices and New Product Portfolio Innovativeness are the factors that mainly affect Organizational Innovation and Innovation Performance.

Keywords: Innovation Management, Innovation Culture, Knowledge Management, Organizational Learning, Leadership, Strategic Orientation.

INTRODUCTION

Nowadays, innovation is important for increasing firms' competitiveness. As consumers have become more sophisticated in seeking innovation in all markets and countries, businesses need to constantly redesign their management and marketing strategies and practices in order to improve and maintain their competitive positions. As a result, product life-cycle stages become shorter (Ersun et al., 2013).

Many different definitions can be found in literature. Thus, according to Hassan and Al-Hakim (2011), innovation is defined as "a knowledge-based process for creating new ideas, markets, products and services with a view to overall organizational performance improvement." Innovation is, therefore, the process where a creative idea is followed and transformed into a useful product, service, or workflow (Robbins et al., 2012).

However, successful innovation is the creation and implementation of new processes, products, services and methods of delivery that result in efficiency, effectiveness or quality (Kumar et al., 2014).

Organizations that successfully innovate have the following characteristics (Bessant and Tidd, 2017): a) explore and understand the different dimensions of innovation, b) manage innovation as a process, c) create conditions that enable them to resume innovation (development capacity), d) use this ability for business development (innovation strategy), and e) create dynamic capacity (ability to maintain or adapt their approaches to an ever-changing environment).

Small and medium enterprises (SMEs) are the main innovative organizations. They are more effective than large companies in innovation because they urgently require innovation. The ability of SMEs to respond to growing consumer expectations is largely based on their ability to innovate and produce new products at competitive prices. The level of innovation in small businesses may vary considerably depending on the strategic goals and the capacity of their leadership. Just as large enterprises can be distinguished between high innovation and non-innovative entrepreneurs, small businesses can range from very innovative business types to more conservative types (Mazzarol et al., 2010).

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Organizational innovation refers to the creation or adoption of an idea or behavior and its successful implementation within the enterprise (Noruzi et al., 2013). There are different types of innovation, but only three are the most important: a) administrative or technical, b) product or process, and c) radical or gradual (Liao and Wu, 2010). Product innovation is also defined as the innovation associated with the introduction of new products (or services) that incorporate a substantially different technology from that used for existing products (Kim et al., 2012). Product innovation is about the success of the product and it is associated with business success (Wang and Ahmed, 2004). Innovation performance can be measured in various ways, such as the achievement of a competitive advantage, the satisfaction of customer needs, the achievement of business goals and the revenue growth rate (Blindenbach et al., 2010). Organizational performance is defined as the process of assessing a company's progress in achieving pre-determined goals and its efficiency of organizational goals (Hassan and Al-Hakim, 2011).

The proposed new conceptual framework includes some of the most important factors that have been found in the relevant literature. It consists of twelve independent factors, which are measured using twenty-one sub-factors, and one dependent factor (Innovation Performance).

Firm characteristics may affect both the use and effectiveness of management specific practices. These practices are often aimed at removing specific barriers affecting the implementation of an innovation (Blindenbach et al., 2010). Some of the characteristics that are generally considered to support

innovation are high degree of professionalism, decentralization of decision-making and high degree of internal and external communication.

Further, Leadership is related to innovation and organizational effectiveness (O'Regan et al., 2006). Further, transformational leadership can play an important role as it allows employees and businesses to create and exploit opportunities (Noruzy et al., 2013) and, thus, to innovate. The innovative ability of a business belongs to the intelligence, imagination and creativity of its employees. Their activities are indispensable for the development and application of innovation (Jiménez-Jiménez and Sanz-Valle, 2008).

Moreover, Knowledge Management (KM) is a set of activities, initiatives and strategies that companies use to create, store, transfer and apply knowledge to improve organizational performance (Donate and Guadamillas, 2010). Knowledge is an asset that can effectively increase firms' ability to implement an innovation. Knowledge acquisition and knowledge transfer is important as it promotes innovation activities (Donate and de Pablo, 2014), since the availability and implementation of knowledge dissemination practices entails a higher level of innovation for the enterprise (Donate and Guadamillas, 2010). In general, a knowledge-based organization is more able to be innovative (Lee et al., 2013).

Businesses that adopt an innovation culture apply new ideas and processes and use new systems to produce their products or provide their services (O' Regan et al., 2006). The innovation culture is a corporate culture that leads to innovation (Spacey, 2016). This culture fosters the exchange of ideas, knowledge and experimentation, while it is the core of exploration and exploitation activities for innovation (Donate and Guadamillas, 2011). Organizational learning is a process that involves acquiring, sharing and utilizing knowledge. Knowledge, which originates from both external and internal learning, is integrated into the knowledge base of the enterprise and plays an important role in the innovation process (Alegre et al., 2011). In particular, organizational learning enables the company to develop capabilities that enhance innovation (Jiménez-Jiménez and Sanz-Valle, 2011).

Dynamic capabilities are knowledge-oriented organizational and strategic routines (Sicotte et al. 2014), which help businesses redefine knowledge management practices and adopt flexible ways to develop new knowledge management systems and, as a result, enable them to be innovative.

Strategic innovation orientation leads a company to achieve a sustainable competitive advantage through the application of innovations. Such an orientation affects firms' innovation management philosophy (Talke et al., 2011). Strategic innovation orientation refers to management innovation, proactive innovation orientation and customer relationship management capability. With the growth of market-oriented companies, greater priority is given to radical innovation. A proactive customer

orientation increases the introduction of new products. Technological orientation leads to products that are technologically more innovative (Talke et al., 2011).

Research and Development (R & D) concerns all activities related to corporate innovation and is the first stage in developing a possible new idea for a product or service. When an enterprise invests in R & D, it acquires a huge inflow of knowledge. That knowledge is useful and it can be used by the firm to further develop its product lines. R & D is really important and relates to innovation as it directly supports the development of knowledge and technology (Wikipedia, 2017).

In addition, products' portfolio innovation, the originality of a company's new portfolio of products, is a key concern for innovation management and is related to New Product Development (NPD). Portfolio innovation includes aspects of technology, market, internal and external resources (Schultz et al., 2013). New product portfolio innovativeness can increase performance, as new products can satisfy customer needs and, thus, increase their value. These products differ from competitors' products, which can lead to increased sales, prices and, ultimately, higher profitability and steady growth (Talke et al., 2011).

All the findings of the previous researches presented earlier, provide sufficient evidence supporting the following hypotheses:

Hypothesis 1: Firm characteristics positively influence the innovation performance.

Hypothesis 2: Leadership positively influences the innovation performance.

Hypothesis 3: Knowledge management positively influences the innovation performance.

Hypothesis 4: The innovation culture positively influences the innovation performance.

Hypothesis 5: Knowledge-centered culture and practices positively influence the innovation performance.

Hypothesis 6: Knowledge-oriented dynamic capabilities positively influence the innovation performance.

Hypothesis 7: Organizational learning positively influences the innovation performance.

Hypothesis 8: Strategic innovation orientation positively influences the innovation performance.

Hypothesis 9: Organizational innovation positively influences the innovation performance.

Hypothesis 10: Research and Development positively influences the innovation performance.

Hypothesis 11: New product portfolio innovativeness positively influences the innovation performance.

Hypothesis 12: Innovation performance positively influences the organizational performance.

RESEARCH METHODOLOGY

A structured questionnaire was used to collect the primary data. The measurement of each of the thirteen factors of the proposed conceptual framework was conducted with the use of multiple questions (items) that were adopted from the international literature. More specifically, in its first section, there are nineteen (19) questions concerning the main characteristics of the sample, while in the other sections one hundred and sixty (160) questions (five point Likert scale) are used for measuring the thirteen (13) main factors with their twenty-one (21) sub-factors. The questions used for measuring these factors were mainly adopted from Battor & Battor (2010), Donate & de Pablo (2014), Donate & Guadamillas (2011), Kim et al., (2012), Lai et al., (2013), Liao & Wu (2010), and Lin et al., (2010).

The population of this survey consists of employees of Greek enterprises from all economic sectors. The response rate of the companies to which an invitation to participate was addressed was 88.46%. In total, four hundred and forty four (444) replies were collected, while eighteen (18) were deducted from the final sample due to their extreme values or missing information. Therefore, the final sample of this survey consists of four hundred and twenty six (426) questionnaires.

RESULTS OF EMPIRICAL RESEARCH

Sample Characteristics

The sample consists of men (67.6%) and women (32.4%) who are 42 years old (mean score) and well educated (64.8% hold a university degree and 12.7% more hold a Master's Degree). With regard to their job position in a company, 31.0% are employees, 19.7% are managers and 16.9% are owners. They have 15.5 years of work experience (with a minimum of 3 years), while 8.5% of the respondents have about 20 years of work experience.

The majority the respondents work for manufacturing (52.1%) and small firms (49.3%) (with an average of 78 permanent and 11 seasonal employees). On average, they produce 5 main products, while their market share is 22% and 27% (at national and local level respectively). Surprisingly, and despite of their size, 33.8% of the participating firms have an independent R & D department, while only 9.9% of them do not employ anyone who is responsible for doing research on new products, and 18.6% more have one or two employees for this purpose. This leads to the conclusion that most the firms in the sample are sufficiently engaged in product innovation activities.

This conclusion is supported by another finding that shows that only 8.5% of the companies have not launched any new product in the market the last three years, while 16.9% have launched up to three products. Moreover, only 22.5% of the firms have not made significant changes to their existed

products over the last three years. However, only 19.7% of these firms launched first a new product, although, the percentage of new products in their existing portfolio is 14.1%, and despite the fact that 81.7% of them have invested in new machine & equipment purchase in the last three years.

As far as the mean scores of the factors and the sub-factors examined is concerned, participants argue that the leadership of the business they work for is knowledge-oriented (mean = 3.92), transformational (mean = 4.12), human resource oriented (mean = 4.04). In addition, these firms manage knowledge to carry out their activities (mean = 3.52), i.e. they try to acquire knowledge (mean = 3.57) and apply knowledge dissemination practices (mean = 3.39).

In general, these firms have a culture of innovation (mean = 3.52) combined with the adoption of knowledge-based culture and practices (mean = 3.50). Besides, business knowledge-oriented dynamic capabilities (mean = 3.25) and the ability of external (mean = 3.10) and mainly internal (average = 3.40) learning are relatively satisfactory. The same applies with organizational learning (mean = 3.82). It is also noticed that the participating companies are applying innovations in strategic orientation (mean = 3.44) and administrative innovations (mean = 3.51), and less in organizational innovation, i.e. radical product innovations (mean = 3.16), radical process innovations (mean = 3.30), and marketing innovations (mean = 3.13). Finally, they apply satisfactorily R&D activities (mean = 3.78), while innovation performance (mean = 3.64) and organizational performance (mean = 3.91) are at a high level.

Factor and Reliability Analysis

Principle components factor analysis was performed for assessing Construct validity. More specifically, sampling adequacy was examined using the 'Kaiser-Mayer-Olkin' (KMO) score (values over 0,6 are acceptable - Son, 2011). Further, to test the convergent validity, factor loadings were calculated (with acceptable values higher than 0,6). Also, Total Variance Explained was calculated (values over 60,000 are acceptable - Nandagopal et al., 2007). Construct reliability was assessed using Cronbach's α -value (acceptable values greater than 0,7 - Nunnally, 1978, or greater than 0,6 - DeVellis, 2003). The results (Table 1) show that the factors created are compact and reliable structures.

Factor	KMO	TVE	Loadings	Cronbach a	Mean	St.D.
B. Firm Characteristics	,562	61.510	,573 - ,844	,671	3,40	,650
C. Leadership	,676	69.444	,776 - ,873	,779	4,03	,604
D. Knowledge Management	,722	80.010	,870 - ,922	,873	3,49	,689
E. Innovation Culture	,674	77.412	,794 - ,920	,850	3,52	,828
F. Knowledge-Centered Culture and Practices	,771	54.174	,677 - ,795	,788	3,50	,654
G. Knowledge-Oriented Dynamic Capabilities	,500	77.842	,882 - ,882	,715	3,25	,841
H. Organizational Learning	,777	72.260	,724 - ,895	,839	3,82	,767
I. Strategic Innovation Orientation	,703	79.141	,842 - ,925	,867	3,44	,751
J. Organizational Innovation	,776	59.520	,749 - ,787	,772	3,27	,711
K. R&D	,732	62.169	,602 - ,890	,790	2,78	,875
L. New Product Portfolio Innovativeness	,741	61.458	,636 - ,870	,838	3,07	,770
M. Innovation Performance	,727	81.425	,887 - ,928	,879	3,64	,694
N. Organizational Performance	,710	74.316	,827 - ,881	,826	3,91	,619

Table 1: Factor Analysis

Correlation analysis

First, it is observed (Table 2) that only the position and the educational level of the respondent are significantly related with organizational performance (N), while only position to innovation performance (M). Overall, position, education and work experience seems to be the only characteristics of the respondents that are related to a rather limited number (2 out of 11) of the independent factors of the model (F and E for position, E and I for education, and D and H for work experience). Further, as far as firm characteristics are concerned, only foundation year (age of the firm) is positively related to both organizational performance (N) and innovation performance (M), as well as to four of the independent factors (F, D, G and K). On the other hand, all the innovation related firm characteristics (the existence of an independent R&D department, investment in new machinery, number of new products produced in the last 3 years, number of old products with changes in the last 3 years, products that first entered the market and percentage of new products to the product portfolio) are statistically related not only to innovation performance (M) and organizational performance (N), but almost to all the independent factors of the model.

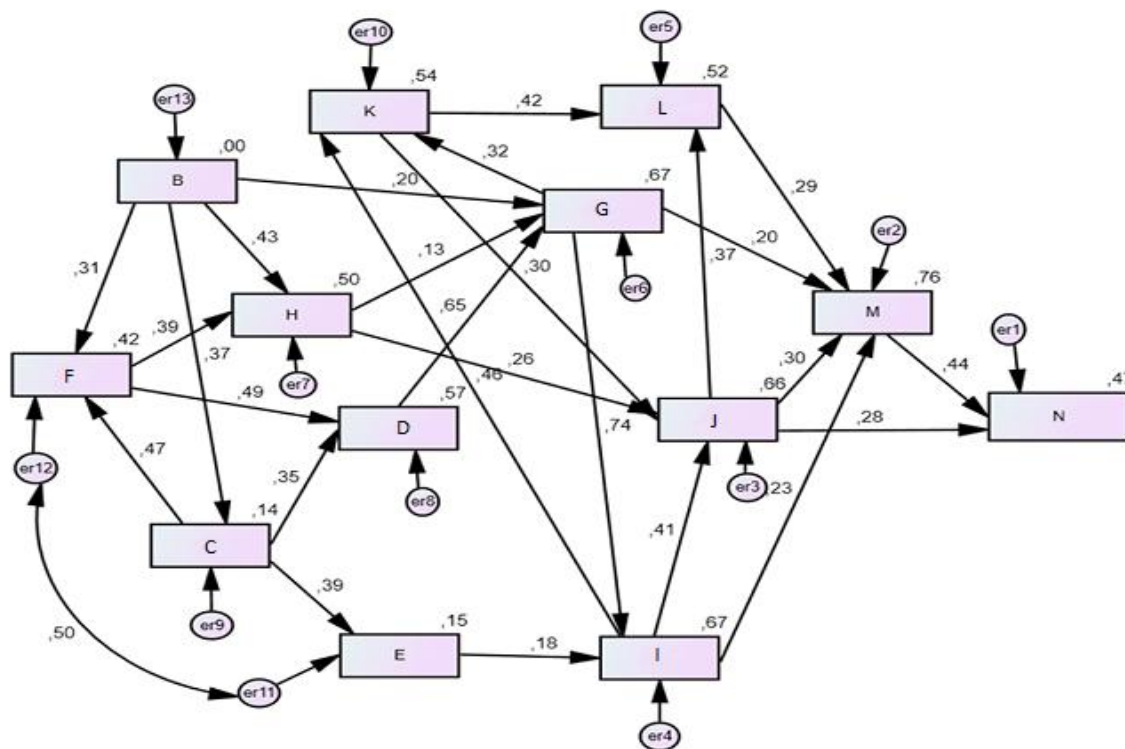
	Position	Gender	Age	Edu- cation	work experience	Sector	Foundation year	National Market Share	Local Market Share
B									,241*
F	-,238**						,289**		
C									
D					-,211*		,305**	-,234*	
E	-,174*			-,190*					
H					-,286**	,178*			
I		,198*							
G							,266**		
J				-,227**					
K							,188*		
L									
M	-,183***						,207*		
N	-,183*			-,179*			,202*		

Table 2: Correlations of factors and sample characteristics

Structural Equation Modeling

Then, Structural Equation Modeling (SEM) was used to test the proposed model. The prediction power of the proposed model (see Figure 1) is extremely satisfactory. More specifically, the factors account for 76% of the changes in the main dependent factor Innovation Performance (M) ($R^2 = 76\%$), where Organizational Performance (N) is also interpreted by 47% and Organizational Innovation (J) by 66%. It is therefore reasonable to claim that the modified research model accurately reflects the antecedents of innovation management with in the Greek SMEs framework.

The following indices for checking the goodness-of-fit have been used: Minimum Sample Discrepancy / Degrees of Freedom (CMIN/DF), Relative Fit Index (RFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Root Mean Square Residual (RMR) and Root Mean Square Error of Approximation (RMSEA). All indices are within the acceptable level which indicates that there is a good fit for the proposed model. The proposed model is presented in Figure 1, where path coefficients and the relationships between the factors of the model are included.



$CMIN/DF = 2,168$, $CFI = ,958$, $GFI = ,924$, $TLI = ,936$, $RMR = ,027$, $RMSEA = ,091$

Figure 1: Modified conceptual framework

Eight of the twelve initial research hypotheses are confirmed by the analysis of the empirical data. In particular, the following factors are found to have a direct impact on Innovation Performance (M): G (Knowledge-oriented Dynamic Capabilities), I (Strategic Innovation Orientation), J (Organizational Innovation) and L (New Product Portfolio Innovativeness), while it is confirmed that Innovation Performance (M) directly affects Organizational Performance (N). Simultaneously, a number of new causal relationships have emerged between the original factors, many of which indirectly affect the Innovation Performance (M). Of course, it should be underlined that the remaining eight (8) initial hypotheses are indirectly confirmed, due to the existence of strong indirect relationships between the factors examined.

	Effect	B	C	F	D	H	G	E	I	K	J	L	M
I	Total	,404	,367	,270	,478	,095	,739	,182					
	Direct	,000	,000	,000	,000	,000	,739	,182					
	Indirect	,404	,367	,270	,478	,095	,000	,000					
J	Total	,434	,288	,287	,324	,329	,501	,099	,548	,301			
	Direct	,000	,000	,000	,000	,264	,000	,000	,411	,301			
	Indirect	,434	,288	,287	,324	,065	,501	,099	,137	,000			
M	Total	,410	,315	,279	,419	,190	,647	,092	,507	,241	,403	,287	
	Direct	,000	,000	,000	,000	,000	,195	,000	,232	,000	,296	,287	
	Indirect	,410	,315	,279	,419	,190	,452	,092	,275	,241	,107	,000	
N	Total	,302	,219	,203	,275	,176	,424	,068	,376	,190	,458	,126	,438
	Direct	,000	,000	,000	,000	,000	,000	,000	,000	,000	,282	,000	,438
	Indirect	,302	,219	,203	,275	,176	,424	,068	,376	,190	,176	,126	,000

Table 3: *Effects between factors*

Innovation performance (M) has the strongest direct effect ($r = 0.438$) on organizational performance (N). Consequently, H12 is confirmed by the empirical data. The direct impact of innovation performance on organizational performance has been studied by several researchers. For example, Roxas et al. (2014) examined the relationship between innovation and organizational performance and concluded that innovation has direct positive effects on organizational performance. Furthermore, Organizational Innovation (J) has also an immediate positive effect ($r = 0.282$) on organizational performance (N). This is explained by the fact that if an enterprise applies innovations at an organizational level, some positive results will emerge and, thus, the performance of the organization will be improved. This view is also supported by Noruzy et al. (2013).

As mentioned above, there is an immediate positive relationship between innovation performance (M) and four (G, I, I and L) of the independent factors. Therefore, hypotheses H6, H8, H9, and H11 are accepted. These results have been also confirmed by a series of previous studies. Alegre et al. (2011) supported the direct and positive impact of firms' knowledge-oriented dynamic capabilities on innovation performance. Also, Talke et al. (2011) agreed that when innovation has a strategic orientation, firms have the ability to obtain a competitive advantage. Finally, Schultz et al. (2013) argued that the aspects (e.g. environmental) chosen for the understanding of new product portfolio innovativeness influence the relationship between portfolio innovativeness and its performance.

The results presented in Table 3 highlight the fact that all independent factors, apart from the New Product Portfolio Innovativeness (L), indirectly affect Innovation Performance (M). Thus, Knowledge Management (D) strongly (0.419) influences (indirectly) innovation performance. Therefore, it is reasonable to accept H3. It is known that businesses are more effective when they effectively manage knowledge (exchange, acquire and use their knowledge) because it is possible to create new ideas utilizing their knowledge. This, in turn, may lead to import innovations (product, process and administrative), something which, in the long run, will benefit (financially or/and non-financially) the organization. This result is also supported by other researchers, such as Gloet and Terziowski (2004),

who have claimed that firms' knowledge management has a positive effect on innovation performance.

Further, Leadership (C) (indirectly) affects innovation performance (H2 is accepted). Knowledge-based leadership promotes learning through experience and knowledge acquisition from the external environment. Moreover, with the implementation of transformational leadership, businesses have a primary goal to find new opportunities. Finally, it is observed that firm characteristics (B) indirectly influence innovation performance (acceptance of H1).

CONCLUSIONS

The present study shows that innovation performance has a positive impact on the performance of the whole organization. This is because, with the implementation of effective product and process innovations, a company is capable of satisfying and, thus, retaining its customers, increasing the quality of its products and achieving high financial and non-financial performance.

Further, it was observed that organizational innovation does not simply affect the performance of innovation but, also, has a direct and quite strong impact on the performance of the whole organization. This means that radical product and service innovations, radical innovations in the production processes, administrative innovations, and marketing innovations that are implemented at a firm's market level create a high performing innovative enterprise.

Also, it is important to mention that firms knowledge management, culture, practices and dynamic capabilities play an important role affecting both innovation performance as well as organizational performance. This is achieved by exchanging knowledge with the internal and external environment. The role of knowledge-oriented dynamic capabilities within an enterprise is extremely important in terms of its impact on innovation performance. In particular, knowledge-oriented dynamic capabilities have a direct (0.195), but mainly indirect (0.452), impact on innovation performance. This practically means that a firm has developed the ability to create dynamic capabilities through organizational learning and knowledge management (whether it comes from internally or externally) and to improve organizational innovation and innovation performance.

Strategic innovation orientation plays a very important role because it directly affects both organizational innovation and innovation performance. When strategic innovation orientation is related to organizational innovation (product innovation, process innovation, administrative innovation, marketing innovation), it indirectly and positively affects innovation performance. This is easily explained because strategic innovation orientation is an important part of any innovative strategy. In conclusion, firms that carry out proactive activities are more able to anticipate customer

needs and produce specific products that meet their needs. In this way, firms effectively manage their customer relationships as customers are involved in the development of new products and, thus, most product innovations help firms satisfy new customer needs as they offer unique advantages over competitors.

Moreover, knowledge management positively influences knowledge-oriented dynamic capabilities, as knowledge acquisition and knowledge dissemination practices are related to a firm's ability to use the knowledge from its internal and external environment. In addition, knowledge-oriented culture and practices positively influence knowledge management, because when its culture and practices focus on knowledge, a firm receives useful information for the application of innovations and, thus, is able to effectively manage knowledge.

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CODE, ETHICS AND CROSS-CULTURAL DIFFERENCES: CHALLENGES OF AMERICAN'S MNC IMPLEMENTING OF CODE OF ETHICS IN SINGAPORE SUBSIDIARY

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ABSTRACT

Is there a universal business code of ethics? What is ethical in Singapore may not be considered as ethical in America and vice versa. This paper attempts to trace the origin and development of business code of ethics until the current practices in both countries. The second aim was to find out whether the cultural differences in the subsidiary company are taken into consideration and thus the ethical code of conduct is adapted to them, or whether the subsidiary, despite the local cultures and norms, have to follow strictly the ethical code of conduct, developed by the parent company. It will also examine the challenges facing American companies in localizing their operations in Singapore to stay competitive and successful, while staying with U.S. FCPA (Foreign Corrupt Practices Act) compliance guidelines.

The research is conducted and objectively accomplished by using qualitative approach. An empirical part of the research, which the focus stays on one multinational organization by using interviews through story telling to gather the information. The results show that ethical trainings, monitoring and reporting are essential in the subsidiary. However, the leaders of an organization and their commitment to ethical behavior play the most significant role in the embedding process. The cultural differences play important role between the parent company and its subsidiary. It imposes a challenge in implementating the ethical codes, and thus it must be seriously taken into consideration. Lastly, the research shows that most of the multinational organizations have only one universal ethical code of conduct, which they push through to their subsidiaries despite subsidiaries' own local standards and norms.

Keywords: code of business, ethics, cultural differences, national culture, corruption, multinational, subsidiary

INTRODUCTION

In an increasingly globalized environment, multinational companies face challenges to implement and

balance the standardization of policies across the borders with serious consideration of specific norms of cultural context (Bartlett and Ghoshal, 1998; Enderle, 1997). Today, it is part and parcel of company's efforts to put in serious consideration of culture contexts related to ethics especially managing the multinational employees and subsidiaries with different cultural background. (Kaptein, 2004; Weaver et al., 1999). Although research on business ethics has a long pedigree in business studies (cf. Graves, 1924; Taeusch, 1932) but typically it is categorized as normative or empirical in outlook (Trevino and Weaver, 1994). In international business ethics, most research has been normative orientated, which means the focus is more on addressing the evaluation questions that concerning the business practices that related to ethical issues. For example, (Donaldson and Dunfee, 1994) studied the issues of transcultural normative theories and (Frederick, 1991) talked about code of ethics. There are very few scholars emphasizing the necessity to take cultures into account when dealing with ethics in business. Most typically, it involved comparative study that examined the impact of culture or national identity on specific forms of ethical behavior. For example: (Langlois and Schlegelmich, 1990) examined how corporate code of ethics content varies across cultures, (Biogoness and Blakely, 1996) studied how cross-national differences were related in managers' response on a widely used survey of ethical values. (Carasco and Singh, 2003; Kaptein, 2004) focused on the content of corporate code of ethics in multinational corporations. (Hood and Logsdon, 2002, p. 883) concluded that: "Cross-cultural business practices and ethical standards will undoubtedly become more important for understanding and facilitating business outcomes." From all the studies, it seems that the integration of code of ethics from multinational corporation head offices to implement the American practices to non-American situations often face challenges, misunderstanding and resistance in the process. It appears that there is a lack of attention to people (especially from different cultural background) within the company who are supposed to live up to the code of ethics.

THE MAIN THEORIES OF BUSINESS ETHICS

Business ethics is a specialized branch of ethics focusing on how moral standards apply to business organizations and behavior. (Velasques 1998) Properly speaking, it cannot be understood separately from the general ideas of ethics, and the general ethical theories apply to business ethics as well. (Lähdesmäki 2005) Thus several theories can be used to study business ethics of organizations.

Normative theory hypothesizes or other statements about what is right and wrong, desirable or undesirable, just and unjust in the society. Normative means relating to an ideal standard or model, or being based on what is considered to be the normal or correct way of doing something. Moral pronouncements cannot be objectively shown to be true or false, since value-judgments are subjective preference, outside the realm of rational inquiry. Thus in Max Weber classic statement of the role of

values in sociological research, he informed his audience that, “ If Tolstoi’s question recurs to you: as science does not, who is to answer the question: “ What shall we do, and, how shall we arrange our lives?”then one can say that only prophet or a savior can give the answers’(Science as Vacation, 1919). Normative ethics in one of three main component areas of inquiry of philosophical ethics, the two others being meta-ethics and applied ethics. Normative ethics, also known as normative theory, or moral theory, intends to find out which actions are right and wrong, or which character traits are good and bad. In contrast, meta-ethics, as the term suggests, is a study of nature of ethics. A meta-ethical study would be concerned, amongst other things, with determining the meaning and objectivity of moral concepts of right and wrong, or good and bad. Applied ethics is just the application of normative ethics to particular issues of practical concerns such as abortion, cloning, animal rights and criminal punishment, sometimes using the conceptual tools of meta-ethics as well. (Buckler 2010;156) Normative thinking typically invokes principles with respect to how we should conduct and organize ourselves; as such, it seeks to provide norms that prescribe appropriate ways of acting individually and collectively. Four normative theories exist which are utilitarianism, Kantianism, ethical intuitionism and virtue ethics. If we were to accept division of normative theories into teleological and non-teleological theories, then utilitarianism and virtue ethics would count as non-teleological theories, whereas Kantianism and intuitionism as non-teleological theories.

(Kaptein 2009) Utilitarianism with the principle of utility as the basic moral principle is related to consequences, primarily focusing on the effects and results of the actions of agents. The theory emphasizes the leader’s actions; behavior and/or conduct have positive outcomes. This means that the outcomes connected to person’s behavior establish whether the behavior was ethical or unethical (Hesselbein 2012). Kantianism with the categorical imperative as a fundamental moral principle is basically a principle of consistency, demanding that we act on reason, which all rational agents could endorse, that is, universally acceptable reasons. Ethical intuitionism says that we can directly intuit or apprehend moral principles; it is epistemological and undoubtedly belongs to meta-ethics. But, ethical intuitionism has another sense in which it can be considered to be part of normative ethics as it methodologically refers to unranked pluralism that claims that there are a plurality of moral principles, and that none of these moral principles is more basic or important than any other.

Theory of moral rights claims that people have certain fundamental rights, also known as human rights, that should be respected in all decisions, such as: the right to life, the right to free consent, the right to free speech, freedom of thought and freedom from slavery. (Budd 2004) The morally correct behavior is the action that a person has a moral right to do, that does not violate the moral rights of others, and that promotes the moral rights of others. (Schumann 2001) Thus a manager making

decisions based on this theory should avoid violating the rights of other who may be concerned by the decision.

Virtue ethics refers to morally proper actions result from having the proper character traits or habits (virtues), such as courage, moderation, wisdom, justice, and truthfulness. A virtuous person will be able to judge what is right thing to do, which related to leaders and who they are (Kaptein 2009; 602). These virtues can be learned and retained through experience and practice. The learning usually occurs in an individual's family and in the various communities with which an individual interacts throughout his or her lifetime.

The famous Game theory, established by two Princeton wizards as an important influence in applied mathematics, has made an inroad into ethics and promoted by many business theorists though some scholars have criticized the fundamental of the theory itself. Solomon (1992, p.5) argued that Game theory, like mathematical models in physics, purports to help us to understand the diverse and complex phenomena, in the case of ethics, it supposedly rational behavior of that singularly abstract specimen of humanity, sometimes called "rational man". However, human behavior might not behave rationally especially when it comes to monetary issues. One can behave very differently and reflects in their personal preferences, which includes the attitude toward their job and other habitual activities. To be rational, one might not seek to satisfy one's own advantage or seek one's own preferences. In general, people do change the way in which they evaluate a moral problem. Human beings undergo experiences that force them to change their moral beliefs, and when those moral beliefs change, how they subsequently evaluate a moral problem changes. In addition, in a world in which most of us are uncertain about our future, it is rational that we attempt to obtain the most accurate information when making decision. One component of the information gathering process will be to acquire the best model for evaluating moral problems. Acquiring the best model will require that one changes whatever moral assumptions are in the model that do not maximally fit with other information available to the agent.

THE ETHICS OF THE ORGANIZATION AND CODE OF CONDUCT

Business code of ethics

Before we talk about the business code of ethics, first we wonder what ethics itself are. Generally speaking, ethics are the branch concerning on the issues of how we ought to act under certain circumstances with decision that needs to make. Perhaps the example of Ten Commandments from the Bible served as a guide for us to use as measurement of ethics by many today. In particular, the injunctions to truthfulness and honesty or the prohibition against theft and envy are directly applicable. A notion of stewardship can be found in the Bible as well as many other notions that can be and have

been applied to business. Business ethics are moral principles that guide the way a business behaves such as dealing with employees' rights, corporates' obligations, advertising, and intellectual property. Acting in an ethical way involves distinguishing between "right" and "wrong" and then making the "right" choice. It is relatively easy to identify unethical business practices. For example, companies should not engage in bribery. Anglo American has played an active part in initiatives to set out principles and practices for ensuring that a company's need to ensure the security of its employees and operations at cross border does not adversely impact upon the local population. However, it is not easy to create hard-and-fast definitions of good ethical practice based on different cultural definition. (Cragg, 2005, pg.26) The nature of modern corporation accounts with the responsibility of ethical obligation. Milton Friedman acknowledged that corporations have the ethical responsibilities with four elements: an obligation to maximize profits; an obligation to honor certain fundamental rules of game; an obligation to respect the law and an obligation to respect local ethical custom. (The Times 100) Although companies recognizes that the objective is to make profit but this objective must take account of ethics as shown in its statement on corporate responsibility: *"Though providing strong returns for our shareholders remains our prime objective, we do not believe that these can or should be achieved at the expense of social, environmental and moral considerations. Indeed a long-term business such as ours will only thrive if it also takes into account the needs of other stakeholders such as governments, employees, suppliers, and communities."*

WHAT IS CORPORATE CODE OF CONDUCT?

What is corporate code of conduct? (Salbu, 1994) Corporations or collectivities of corporations adopt corporate code, usually unilaterally and as a result of a decision taken in the top management decision. The outcome of the decision is to modify its conduct and image to demonstrate the ability of the corporation to adhere certain good practices to the market in the business context environment. The corporate code of conduct is normative (Getz, 1990). They reflect the behavior or choices of the board of directors, managers and employees, who are closely related to the suppliers, subsidiaries, distributors and subcontractors and government agencies. The code is often drawn up in consultation with governments, employees, local communities and other stakeholders. It deals with business practices, relationship with employees and public official, environmental issues, human rights or all of these (Gordon and Miyake, 1999). The obligation to maximize profits has led corporation to play within certain rules intentionally or publicly to become profitable organization and good ethics are seen as good business. Ethical management has instrumental value and is strategically seen as good management. Therefore, corporation commits to code of ethics such as honesty and integrity to portray good image and generate good public relations. Company expects that individuals and firms adhered to the code with certain standard and abstains to violate the standard. To certain extend, the act can be

vulnerable when the violation occurred – employees will be dismissed or disciplined and suppliers contract will be terminated.

(Cragg, 2005, pg. 51) Although most corporate would like to roll out the best practices with high standard, but the enforcement mechanism seems to lack, they often appeared to be merely didactic or hortatory. For example: the languages in the book of code of conduct are too vague to give specific understanding and useful guidance to those who wants to comply with the rules. The content or languages used need to take into consideration the local custom and cultural context. The personnel who implement the process are seldom well trained in *cultural sensitivity*. Most importantly, company seldom establishes proper procedures to guide staff in compliance with the desired ethics.

HISTORY OF AMERICA BUSINESS ETHICS

In order to understand the importance of business ethics in the 20th century, one should analyze the Protestant ethical percepts, which were elaborated by Max Weber. Luther, Calvin, and John Wesley, among other Reformation also discussed trade and business and led the way in the development of the Protestant work ethic. Protestant (particularly Calvinist) ethic influenced large numbers of people including Americans to engage in works in the secular world, developing their own enterprises and engaging in trade and the accumulation of wealth for investment. In other words, the Protestant work ethic was an important force behind the unplanned and uncoordinated mass action that influenced the development of capitalism, in which formed the foundation of the American value system. (Tawney, 1926) Tawney argued persuasively that religion was an essential part in the rise of individualism and commerce to the modern economy. However, in the modern period, the secular, business and politics have divorced from religion. In general, America focuses on the moral or ethical actions of individuals. When people talked about business ethics, it relates to the immoral or unethical activity by individuals. Many American businessmen are strongly influenced by their religious beliefs and the ethical norms that they have been taught as part of their religion, and apply these norms in their business activities.

HISTORY OF SINGAPORE BUSINESS ETHICS

Singapore business landscape was a mixed of British ethical code under the colonization of British and influence of Chinese culture (which primarily was Confucius culture). The question is whether British ethical code had any influence in shaping Singapore Company Code of Ethics. (Zhou, 2007) Since the early days, after the founding of modern Singapore in 1819, the administration in Singapore appointed by Great Britain was basically invisible to the masses of the immigrants due to both the lack of fluency in local languages and the small size of the administration itself until 1867. The majority of the immigrants were Chinese although Singapore was located in an ethnically Malay region. Many ethnic

Chinese in Singapore are descendants of fortune seekers from Southern China who came during British administration. Throughout the period of Colonial rule, though the colonial masters were British, the Chinese community conducted business among themselves and their business ethics (influenced by Confucius culture) were basically identical to what was practiced in Southern China. Until Singapore gained self-rule in 1955 and finally independence in 1963, the Chinese community in Singapore by and large was not influenced by British business ethics saved for the minority of Strait-born Chinese (Peranakan) and Chinese who were converted to Christianity. The Peranakan were largely educated in English and the majority served as civil servants under the British administration.

(Kong, 2010 p.90) Confucian ideology guided by the principle that “ the benevolent care for people’ has established a well-established ethical system. Zhong (loyalty) preached by Confucius was very much practiced by the Chinese community. Zhong (loyalty) basically included two components between individuals, as well as the relations between individual and the collective. The principles are based primarily on loyalty and obligation to friends, family (father and son, husband and wife, as well as between siblings), or superiors, rather than on a system of rules. These are the fundamental moral and ethical forms of dealing with each other. Chinese immigrants migrated from the province of Southern China to Singapore to seek fortune and became businessmen; many of them were guided by principles of loyalty to take care of their own kinsmen. Among the business community, there is a traditional preference for building relationships rather than just focusing in making business deals. The relationship-based approach often involves time and energy, caring and giving to each other with the expectation of reciprocal actions. It remains the most effective way today in many contexts including doing business. Some other key principles of Confucian teaching that influence Chinese are reciprocation of greetings, favors and gifts, respect for tradition and protecting one’s face. At other social context, for example: when people go to hospital to seek treatment, it is a cultural practice among the Chinese to offer gratuity in a form of “Ang Pow” (money in red packet) to the caretaker. This is a form of appreciating the caretaker’s effort in looking after the patient (their family members). However, in order to receive preferential treatment, people often out give the norm. By doing so they have crossed the line of appreciation to corruption. This is even prevalent in the business dealing, when it involves relationship-based approach. It could be seen as corruption under the rule-based system, which is normally practiced in the Western culture.

THE US FOREIGN CORRUPT PRACTICES ACTS (FCPA): GLOBALIZATION MARKETS

Globalization has encouraged the growth of economy both in the developed and developing world. Due to globalization, it is well known that the rate of corruption in the developing world has seriously

exacerbated. The American government attempts to regulate the standard of conduct of American companies by prohibiting the law of bribery for foreign public officials. US dollars acts as a main nominal of worldwide currency and international stature of US dollar is backed up by US worldwide industrial dominance, which accounts for 40 percent of the worldwide industrial output and 20 percent of its export. The worldwide demand of US dollars has given the American government and multinational corporations the power to establish their international standards of business practices and conduct. (Cragg and Woff, 2005) FCPA was laid in the domain of U.S. policy:

Bribery of foreign officials by some US companies casts shadow on all US companies....and creates severe foreign policy problems. The revelations of improper payments inevitably tend to embarrass friendly regimes and lower the esteem for the United States among the foreign public. It lends credence to the worst suspicions sown by extreme nationalists or Marxist that American businesses operating in their country have a corrupting influence on their political systems (US Senate 1976).

FCPA has imposed the moral burden on many American MNCs, which they have criticized that this burden is unfair, as many believed that they have no control over the situation of the countries' business practices. However, FCPA serves as important guidelines and compliance in the company when American MNCs operates across the border.

CORRUPTION FROM NATIONAL AND CULTURAL PERSPECTIVE

Numerous researchers have developed conceptual models and proposition that support culture's influence on corruption and ethics (i.e, Vitell, Nwachukwu, and Barnes, 1993; Wines and Napier, 1992). However, few empirical studies of this relationship have been performed. A number of relationships between culture and corruption were also identified.

When Singapore government took over from the governance of British, corruption was one of the main challenges to tackle. Public officers were poorly paid, population were less educated and many did not know their rights and the only way to get things done was through bribery or through relationship to gain reciprocate of actions. What did Singapore's government do to stop corruption? In the paper of 13th international training course on the criminal justice, Khoo Teck Hin, Deputy Director (Operations), Corrupt Practices Investigation Bureau (CPIB), Singapore mentioned that in 1952, Singapore government set up anti-corruption bureau to curb the prevalent corruption activity. The government realized that as a small nation, it was vital for Singapore to control corruption for survival. The main purpose was to provide a conducive climate and level playing field to attract foreign investment like American multinational companies to Singapore to spur the country's economic growth. The strong anti-corruption statement was made by PM Lee Kuan Yew in 1979, which best explained the need for a corruption-free Singapore: "The moment key leaders are less than incorruptible, less than stern in

demanding high standards, from that moment the structure of administrative integrity will weaken, and eventually crumble. Singapore can survive only if Ministers and senior officers are incorruptible and efficient. Only when we uphold the integrity of the administration can the economy work in a way which enables Singaporeans to clearly see the nexus between hard work and high rewards.” And again emphasized by the then Prime Minister Mr Goh Chok Tong in Parliament in 1993 when he said: “I have every intention to make sure that Singapore remains corruption free. I will not let standards drop. And everyone should know that corruption in any form would not be tolerated. I expect all Ministers, all MPs and all public officers to set good examples for others to follow ...” This is still the same position today and the will of Singapore government to stamp out corruption wherever it may be is still very strong. Obviously, political will was the key ingredient to tackle the corruption and national culture comes into play. Many Singapore top political leaders were educated overseas and many were influenced by British colonial culture. It is not surprising to see that Singapore is a mixed of Western and Chinese culture in many social context.

American tends to be universalist in its outlook: every society works, or should work, essentially the same way. Its business practices, for example, should be based on a market system that is characterized by transparency and regulated by laws that apply to everyone. A country that fails to conform to this model is seen as underdeveloped or dysfunctional. The reality, however, is that different cultures use radically different systems to get things done. While American cultures are primarily rule-based, most of the world’s cultures are functioning by relationship-based. American tends to trust the system, while people elsewhere trust their friends and family. Businesses are organized around discrete deals that are drawn up as contracts or agreements and enforced by a legal system. On the other hand, other cultures like Singapore might organize the business around human relationships that are cemented by personal honor, filial duty, friendship, or long-term mutual obligation. Rule-based cultures are universalist precisely because they are rule-based. While relationship-based cultures invest authority in human beings, rule-based cultures respect the rules for their own sake.

As mentioned by (Hooker, 2008) behavioral differences result partly from different norms, and partly from a failure to live up to these norms. Cultures sometimes truly differ in what they value. The common view that cultures agree on the basics but differ on the details is simply false. The differences are fundamental because they rooted in different conceptions of human nature. At the same time, cultures fall short of their ideals. It is not that some cultures are “less ethical” than others, but that every culture has its own characteristic.

DIMENSIONS OF NATIONAL CULTURES

Based on (Hofstede, 2010) Dimensions of National Cultures finding, I have attempted to identify and highlight a few areas like the Citizen and the State, Business and Ways of Thinking and The Workplace in relations with uncertainty avoidance, short-term and long-term orientation, individualist and collectivist and power distance which most likely related to this paper and the case story below. The purpose is give an overall pictures and comparison of U.S. and Singapore cultural differences.

Although Singapore is classified under weak uncertainty avoidance for the citizen and the state, in general Singapore tolerance level for uncertainty is low, people are not good in dealing with ambiguity. The giving and acceptance of small gifts have been part of the culture, people have to be told explicitly with strong message that it is not allowed to do it excessively if cross the border line, then they will stop doing it.

America	Singapore
1. The Citizen and the State Weak Uncertainty Avoidance	Weak Uncertainty Avoidance
Few and general laws or unwritten rules.	Few and general laws or unwritten rules.
If laws cannot be respected, they should be changed.	If laws cannot be respected, they should be changed.
Outside observers perceive less corruption.	Outside observers perceive less corruption.
2. Business and Ways of Thinking Short-term Orientation	Long-term Orientation
Managers and workers are psychologically in two camps.	Owner-managers and workers share the same aspirations.
Meritocracy, reward by abilities.	Wide social and economic differences are undesirable.
Concern with possessing the truth.	Concern with respecting the demands of virtue.
There are universal guidelines about what is good and evil.	What is good and evil depends on the circumstances.
3. The Workplace Individualist	Collectivist

Management is management of individuals.	Management is management of group.
Every customer should get the same treatment. (universalism)	In-group customers get better treatment. (particularism)
Task prevails over relationship.	Relationship prevails over task.
4. The Workplace Small power distance	Large power distance
Hierarchy in organizations means an inequality of roles, established for convenience.	Hierarchy in organizations reflects existential inequality between higher and lower levels.
Subordinate-superior relations are pragmatic.	Subordinate-superior relations are emotional.
Privileges and status symbols are frowned upon.	Privileges and status symbols are normal and popular.

STATEMENT OF PROBLEM

This paper provides some insights of the dilemmas in the implementation process of business code of ethics when dealing with employees. The aim is to share how the receivers of codes experienced in the process of execution when cross-cultural aspects are involved especially in the context of introducing corporate codes of conduct crafted in another country. When the codes of conduct are applied universally across all cultures without adaption it could be very costly for the company in business operations and talent retention.

RESEARCH METHODOLOGY

The research is conducted and objective accomplished by using qualitative approach. In qualitative approach, it is typical to study existing documents or texts as part of the research. (Vromen 2010; 261) The analyzed documents and texts are either primary sources or secondary sources. Primary sources are original documents produced by political actors ranging from executive, parliamentary or judicial arms of governments to non-government organizations. Secondary sources in turn are for example books and scholarly journal articles. (Ibid. 2010; 262) In this research, the primary sources include company's website information, documents and articles. The secondary sources include books, journals and articles by scholars as reference and source of information. In addition, some previous surveys, which relate to the same topic than this research, will be analyzed. When using qualitative

analysis, the researchers tend to focus on a single or very few cases or examples in order to gain an in-depth understanding of their research subject. (Vromen 2010; 255) Although the theoretical part plays a bigger role in this thesis, it will have an empirical part in the end of the research in which the focus will be on one multinational organization by using interviews through story telling. Watson and Weaver (2003) highlighted in the organization normally presented by the voices of the top managers. The views of corporate issues are often picked up from standardized questionnaires (Arnold et al., 2007; Singh et al., 2005). Stories from the field are rare, and qualitative and ethnographically styled studies of corporate code of ethics in the context of globalization are lacking (Hood and Logsdon, 2002). In this paper, story-telling approach is being used to narrate an incident that happened in an organization (Boje, 2001; Czarniawska, 1999; Gabriel, 2000). Stories are “the most localized element” and often triggered “because something has happened, and people in the organization feel they have to react to it” (Czarniawska, 1999,pg. 79). Czarniawska (1997, p. 95) writes that: “Ideas do not diffuse; it is people who pass them on to each other, each one translating them according to their own frames of reference. The interviews with story telling help to gain more personal opinions and experiences from individuals and this way give better understanding of the research subject. Moreover, interviews leave the interpretation and analysis to the investigator (DiCiccio-Bloom and Crabtree 2006). The case story tells how an American MNC dealing with it’s subsidiary, which two or more different cultures co-exist in the country like Singapore and how the code of ethics were implemented. Six managers were interviewed during the same day, face to face and one at a time. Eight questions were asked with the managers across different departments (see Appendix 1). Each interview took approximately 45 minutes to be completed. The findings of the interviews through story telling are presented in this paper. Due to the promise to the company to maintain the interview with confidentiality, the research is unable to reveal the names of the interviewed managers, the name of the company or any details from which the company is recognizable.

CROSS-CULTURAL CASE STORY OF A MULTINATIONAL ORGANIZATION

Helin and Sandstrom’s (2008) studied the cross-cultural aspects of the implementation of an American company’s code of ethics into a Swedish subsidiary through story telling and interview from the employees and they had found out and categorized eight type of cross cultural stories from the same company: 1) The legal and social systems in the America and Sweden are different 2) Inconvenient of content 3) Inconvenient style 4) The risk of being sued and of ending up in jail 5) Trust and mistrust 6) The cultures and values are different 8) We need/ed an adapted translation 9)What the code says is self evident and we basically have the same values as they do. The similar patterns related to cross-cultural aspects of the implementation of code of ethics of an American’s MNC to its subsidiary in

Singapore have been found to be not very far away from the above mentioned American's MNC implementation of the code to its subsidiary in Sweden, though both are different companies. Therefore, in the cross-cultural case below, through interviews, eight types patterns are observed in Singapore subsidiary. The intent is to find out how employees at the target subsidiary view ethical issues.

The target organization is a global private enterprise, which comprises over 30 subsidiaries worldwide. In 2015 the company had almost 30,000 employees worldwide of which 30% comes from the company's home country America. The company subsidiary in Singapore operates as its Asia Pacific head office with over 200 employees. Six managers of a multinational organization were interviewed for this research during the same day, one at a time. Due to confidentiality, the names of the managers cannot be published. Therefore the Managing Director, Regional Manager, Production Manager, Marketing Manager, Quality Manager and Human Resource Manager are used to represent the respondents.

Case Story and Interview Results

The question concerned the business cultural differences between the head quarter and the subsidiary (see Appendix 1, Question 7). A Regional Manager of the company was involved in a charitable event in a personal capacity. She had approached the company's suppliers and customers for donation to buy gifts for an old folks home. Before she approached the suppliers and customers, she had asked the subsidiary's Managing Director for permission. She highlighted to the suppliers and customers that her act to participate in the charity drive is on her personal capacity. Due to the aging population, Singapore as a society on the whole was very active in promoting social support to old folk's activity. One supplier and another customer were willing to donate S\$300 each to the Regional Manager in supporting this good cause. (*The cultures and values are different: In the high collectivism, high Confucius dynamic and relationship-based culture like Singapore, people showed their supports to each other and sometimes was to "give face" to their friends and business partners.*) Six months later, due to some other incidents, America head quarter sent an investigator to investigate on the Regional Manager. After the investigation, the American investigator concluded that the Regional Manager had violated the code of ethical conduct. She was viewed as misusing her position and power to influence the supplier and customer to support her. There was an implicit implication that the supplier and customer won't want to offend her when she approached them for the donation. In the ethical code of conduct manual, the statement was very clear that the employee should not receive any money or gifts from external party.

The questions (see Appendix 1, Questions 2, 3, 8 and 9) were asked in relation to whether the whole company has a uniform and identical ethical code of conduct or whether it has been modified so that it is more applicable in this subsidiary. The Regional Manager said: "I was asked to sign the code when I

joined the company, the Human Resource Manager passed me the ethical code of conduct manual without much explanation or training. *Inconvenient content:* A Marketing Manager sounded: "Some of the content was not relevant to Singapore when Human Resource Manager asked us to sign the code, but it is *the American way* of doing things, if we want to work with American company we have to conform, take it or leave it." A Production Manager claimed: "Let them be, they do no harm, American is here to create jobs for us." *But what the code says is self-evident and we basically have the same values as they do:* The Quality Manager said: "I have no problem with the actual spirit of the code, nobody will disagree with the principles and everybody signed. Americans has the same ethics like Singapore". *We needed an adapted translation:* The Regional Manager felt that the ethical code was vague and it did not really apply in this case as her intention was not taking the money to enrich herself.

The question (see Appendix 1, Question 1) was asked in relation to the differences of the legal system between America and Singapore. She decided to fly all the way to America head quarter in the hope of meeting the Senior VP of Human Resource and Internal Audit/Legal Department to explain herself. However, they insisted that to be in compliance with FCPA, American's subsidiary had to obey the American law. And unfortunately she had violated the corporate code of conduct, by receiving money from the supplier and customer. The company had to execute the disciplinary action; and she had to leave the company despite her years of contribution to the company. *The legal and social systems in the U.S. and Singapore are different:* After she left the company, she approached a lawyer thinking of suing the company to seek justice. However, she discovered that Singapore labor law seemed to support U.S. multinational companies instead of protecting the employees. The lawyer advised her that the case is vague and she should take serious consideration whether to pursue the charges. The head office in U.S. requires its Singapore subsidiary to follow the U.S. legislation in the implementation of the code of ethics. Another example was the demand to make Singapore consultants, distributors and entrepreneurs who had business collaborations with the case company to sign the code of conduct in order to make sure that the business partners were aware of the ethical practices of the company, but this was not supported by Singapore laws.

The last question (See Appendix 1, Question 6) concerned of what is the trust level of between the company and employee. *Trust and mistrust:* The local subsidiary Managing Director was very upset with the decision made by America head quarters to dismiss the Regional Manager. He exclaimed: "I have managed the company for more than 20 years, it seems that now the Human Resource and Audit/Legal Department do not trust me anymore. I have lost a hardworking and good contributor to the company. Americans do not understand the local culture, take my advice and give me face to manage the incident." He felt that the situation was mishandled and decision made was an injustice to

his subordinate. He was so upset that he decided to resign from the company; he originally wanted to stay with the company till his retirement.

A few months later, the Internal Audit /Legal Department sent their officers to Singapore to conduct face-to-face training for the whole company's employees to ensure that everyone understand the content of code of conduct manual. In 2013, the company produced a very comprehensive code of conduct manual to share with all the employees the responsibility of knowing and accepting the principles of integrity and ethical behavior. The content of the code of conduct included many different scenarios in the different cross-cultural setting. In the manual, the Chairman of the Board and CEO of the company stated this message to the worldwide employers: "We are obligated to understand the basic principles and the specific policies that govern company operations. No one will be exempted from these principles."

FUTURE RESEARCH AND PROPOSAL

The empirical part of this research focused only on one multinational organization. In addition, the research was conducted from a subsidiary's point of view, which was located in Singapore and the head quarter in America. The research was conducted through interviews and story telling, however, another method that could have been used is the comparative method (Hopkin 2010). Comparison across several cases (across among Singapore's and America's employees) enables the researcher to establish social scientific generalizations, not just interpretations from one case. The interviews conduct in both sides will provide two different points of views. However, due to time limitation, and the size of the study, it was not possible to interview employees in two companies. If two companies would have been compared to each other, the research questions should have been different. Furthermore, we need to provide more studies that are less pre-determined about what cross-cultural differences and their effects are, in order to give their occurrences more attention.

DISCUSSION

From the case story, there are two issues here, understanding of the cultural differences and the implementation of the code of conduct. (Hofstede and Minkov 2010, p. 221 -222), what is called corruption is a matter of definition. Corruption is when people misuse the power and their position to illegally enrich themselves. In Chinese cultures, like China, Taiwan, Hong Kong including Singapore, the giving of gifts is an important ritual, but the borderline between giving gifts and bribing is gray sometimes. Arm with the distinctive on rule-based and relationship-based culture, the perspective of how American/West view certain things done in the non-American/East culture, as corruption might be customary practices at the non-American/East culture. The question is where is the line when a token

given as a form of appreciation for the help or services provided crosses the line whereby is taken as a payment to corrupt the other party in giving favors.

It seems that integration of norm-systems across borders within a multinational corporation can be quite challenging and problematic. The process of implementation might expect resistance and misunderstanding of cross-cultural issues from both parties. Thorne and Saunders (2002, pp. 11–12) discussed problems that might occur when multinational corporations tried to integrate systems and routines in all subsidiaries to promote the corporate goals “while at the same time remaining responsive to the local organizational norms and routines, in order for subsidiaries to operate effectively and smoothly in the local environment.” In addition, even though the parent organization has to be familiar with the different cultural norms of its subsidiaries, and especially their national legislation, it does not mean that the ethical code of conduct has to be adapted to them. The consequences of the mishandling can be costly for the company. In the case story, the code becomes “the American code” instead of perceived as code of the whole company. The receivers present themselves as Singaporean and not the employees in the group and they have no choice but to sign the codes of the company if they would like to be employed. The discussion will be universalism versus relativism in code work. Should there be one code for the entire multinational corporation (universalism) or separate codes for each country’s subsidiary (relativism) (Donaldson, 1989; Robertson and Fadil, 1998; Thorne and Saunders, 2002) Langlois and Schlegelmilch (1990, p. 533) conclude that “management needs to consider whether national identity is part of the company’s culture.” Clegg et al. (2007, p. 117) warned about: “An organization that desires a centrally controlled ethics will only stifle the possibility of a reflected and considered ethics.” Company has to take into consideration that when the receivers of the code in the subsidiary signed the code, it makes sure the receivers understand the code and back up the criticism from the subsidiary’s employees by initiating a dialogue or face-to-face training on ethics in relation to the codes and any cross-cultural differences.

CONCLUSION

Although Singapore has often prided itself being a good example of multiculturalism at work, the truth is that multiculturalism is premised on respecting differences that conform to neat categories of race and religion. As Singapore is a global trade and hub with many American’s MNCs establishing their business here, people have adopted cosmopolitan culture in balance to preserve the traditions. Continuing to embrace strong business ethics as a clean state is an inevitable effort in the country and business communities.

Although it seems that till today American MNCs still do not have the full understanding in the cross-cultural differences issues for implementation of ethical codes across the border, including in Singapore, corporation needs to develop intercultural intelligence to manage and establish an integrated system of rules and routines to achieve the goals and values of the company without forcibly imposing, at the same time remaining sensitive and responsive to the norms in the local cultural context so that the business can function efficiently (Thorne and Saunders, 2002). The case story was quite similar with the empirical research of (Helin and Sandstrom, 2008), which compared the U.S. and Sweden company and the arguments of Palazzo (2002, p. 211), which compared the U.S. and German programs in business ethics, that “American-style business ethics programs are [...] not directly transferable to German companies without significant adjustments. An unadjusted application would most likely lead to nothing but resentment and misunderstanding.” The content in the code of conduct has to take the cross cultural perspective into consideration with alignment of basic values, the implementation of code of conduct calls for being “careful in dealing with business ethics” and for “a high level of employee participation” since “ethics can not be prescribed top-down” (Palazzo, 2002, p. 211–212). It is worthwhile to develop a ‘universal’ code that works for every country between cultural relativism and universalism and formulate a “core of ethical norms for business that can be applied worldwide” (Thorne and Saunders, 2002, p. 12). In order to successfully implement the code, the receivers of the code need to have mutual understanding and open-minded with smooth integration spirit to make it works. This research has provided the insight that multinational organizations have created coherent and global standards and rules, in other words, have a similar code of conduct. They do not take local cultures, standards and norms into consideration to adapt the code of conducts. Moreover, headquarter of organizations have increasingly demanded that their ethical code of conduct is strictly followed in every subsidiary. What the organizations are concerned is to reduce unethical behavior in the organization, which might tarnish the company reputation. Although they might claimed to take the local norms, cultures and standards into consideration but do not try to adapt them.

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APPENDIX 1: INTERVIEW QUESTIONS

- 1/5. What are the differences of legal and social system between America and Singapore?
- 2/3. Are the ethical codes provided by the head quarter relevant to Singapore context and do they caused any inconveniences in business operation?
4. What is the American way of doing business in Singapore?
6. What is the trust level between America headquarters and Singapore office?
7. How different are the cultures and values between US and Singapore?
8. Was the codes of conduct adapted to Singapore?
9. Do you clearly understand the codes of conduct and do you think the American's values system is the same as Singapore?

DRIVING AUDIT COMMITTEE DISCLOSURE - LEGISLATION VERSUS BEST PRACTICE

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ABSTRACT

An explosion of corporate and public sector governance failures has dented the credibility of governance and its oversight bodies. Shareholders of companies and the general public have no alternative than to rely on the credibility and effectiveness of governance and oversight structures to protect their interest. The audit committee is such an oversight committee. Where scholars are stressing the shift from compliance disclosure to more substantive information regarding the performance of the audit committee, this study investigates whether the expectation for expanded disclosure (voluntary above force) have been adopted as part of organisational culture. The evolution of audit committee guidance in the King reports and prominent global guidance documents were analysed and compared to current legislation governing all sectors within South Africa. A document analysis in the form of a structured content analysis was conducted to determine, based on disclosure, adherence to the King guidance by South African organisations in private and various public sectors, after which optimal scaling was applied to determine dimensions of disclosure, with respect to audit committee best practice. Lastly, the level of adherence to legislation versus adherence to best practices is gauged within each dimension. The study adds to the body of knowledge on voluntary disclosure of audit committee best practice to be considered by policy makers and management on what may strengthen the credibility and effectiveness of audit committee oversight as perceived by the stakeholder. The result also presents a foundation for further research within this area.

Keywords: Audit committee; Voluntary disclosure; Force disclosure; Legislation; Best practice; Optimal scaling

INTRODUCTION

In the last two decades Enron and Worldcom (Rezaee *et al.*, 2003; Ahluwalia *et al.*, 2016) lifted the lid on corporate governance oversight failure. Since then an explosion of corporate and public sector governance failures has dented the credibility of governance and their oversight bodies (Faull, 2017).

This is also true for South Africa, where in the private sector, examples include Sharemax (Heystek, 2015), African Bank (Donnelly, 2016) and Steinhoff (Rossouw, 2017). For the public sector, examples include the arms deal debacle (Corruption Watch, 2014) and the Nkandla estate (African News Agency, 2016). Most recently, also the numerous major public entity governance scandals at amongst others, the South African Airways, South African Broadcasting Corporation, Passenger Rail Agency South Africa, Transnet and Eskom - all linked to so-called “state capture” allegations (Faull, 2017). In many of these incidences the auditors and per implication the audit committees were accused of neglecting their oversight role (Moneyweb, 2017; Rossouw, 2017).

Stakeholders have no alternative than to rely on the credibility and effectiveness of governance by management, and oversight structures to protect their interest. The audit committee is such an oversight structure whose existence stem from the need to protect the interest of stakeholders as per the agency theory’s principle-agent problem (Al-Rassas & Kamardin, 2016; Setiany *et al.*, 2017), by providing assurance on good governance. The formal manner of communicating with stakeholders is disclosure in the annual report of organisations. Stakeholder perception on the effective functioning, and thus credibility, of the audit committee may be based on what is being disclosed to them.

To ensure the effective functioning of a credible audit committee, scholars have debated, *inter alia*, its structure, role and responsibility as well as its effect on the performance of the organisation (e.g. Alleyne *et al.*, 2006; Al-Matari *et al.*, 2017; Setiany *et al.*, 2017). Scholarly research, together with pressure to strengthen investor confidence, culminated in guidance documents, commencing with the United Kingdom’s Cadbury report (The Committee on the Financial Aspects of Corporate Governance, 1992) and South Africa’s first King report (IoD, 1994), to name a few. Some governments have decided to formally incorporate guidance in legislation, such as the Sarbanes-Oxley Act of the United States of America (USA, 2002) and South African legislation, to enforce compliance on what is deemed the composition requirements and role of an effective audit committee.

After years of research on ‘best practice’ that are incorporated in guidance documents and legislation, scholars opine that mandatory rules can result in the symbolic display of conformity (Bédard & Gendron, 2010; Contessotto & Moroney, 2014; Brennan & Kirwan, 2015). Bédard & Gendron (2010) argue for more exploratory and explanatory studies opposed to the numerous relational studies on audit committee effectiveness. Relational studies do not improve the understanding of why and how the association between audit committee characteristics and its effectiveness happens. The reasoning is plausible in the light of continuous governance scandals globally and the increase in mandatory audit committee requirements. However, Bédard & Gendron (2010) caution that investor (stakeholder) perceptions are still influenced by the supposition that audit committees can improve stakeholder confidence in the information presented to the stakeholders by the organisation. The

stakeholder confidence is increased when it is perceived that the audit committee adopts practices that are considered by the market as 'best practices' – no matter their substantive impact on information quality. The question arises whether audit committee disclosure is based on best practices (the so-called 'voluntary disclosure') or on adherence to legislation (also referred to as 'by force').

Scholars have investigated elements relating to audit committee best practice (e.g. Martinov-Bennie *et al.*, 2015; Dewayanto *et al.*, 2017) and audit committee disclosures (Rezaee *et al.*, 2003). It is also recognised in practice that organisations have generally increased voluntary disclosure on the role and activities of audit committees (Deloitte, 2017). However, no study investigated whether disclosure on audit committees are driven by best practice or by force. The objectives of this study, supported by the legitimacy theory, are first to establish whether the King reports on governance may be regarded as best practice for audit committees. If so, secondly, to determine which areas of best practice are being disclosed (or not) and how these areas relate to legislative requirements. To achieve the first objective, the evolution of audit committee guidance in the King reports and prominent global guidance documents were analysed and compared to current legislation governing all sectors within South Africa. To achieve the second objective, a document analysis in the form of a structured content analysis was conducted to determine, based on disclosure, adherence to the King guidance by South African organisations in various sectors (hereinafter referred to as spheres since the public sector has been divided into three categories), after which optimal scaling was applied to determine dimensions of disclosure, with respect to audit committee best practice. Lastly, the level of adherence to legislation versus adherence to best practices is gauged within each dimension.

The rest of the paper is structured as follows: the research methods followed are explained; the theoretical framework and the finding to address the first objective and the results and supporting literature regarding the second objective are presented; the conclusion, implication and recommendations are discussed.

RESEARCH METHOD

To achieve the first research objective, two document analyses were conducted, namely 1) the three King reports and three prominent global guidance documents were analysed and 2) the King III requirements (IoD, 2009) were compared to legislative requirements. (Although a fourth King report was issued in 2016, its inaugural application succeeds the data collected for this study.) The aim is to determine whether the King III can be viewed as a form of 'best practice' guidance. First, the three King reports were compared to the leading corporate governance documents issued in the United Kingdom. Thereafter, King III was analysed, identifying 47 items on audit committee requirements. These items were compared with requirements from the Companies Act, no. 71 of 2008 (RSA, 2008),

the Public Finance Management Act (PFMA), no. 1 of 2000 (RSA, 1999), its supporting Treasury Regulations (RSA, 2005) and the Municipal Finance Management Act (MFMA), no. 56 of 2003 (RSA, 2003), to determine whether King III requirements (voluntary disclosure on best practices) are more comprehensive than legislative requirements (forced). These acts represent the South African private sector and different public sector spheres.

To achieve the second research objective, a document analysis in the form of a structured content analysis were conducted on the 2014/15 annual reports of private and public sector organisations. The sample consisted of: 41 listed companies, selected based on their market capitalisation ranking; 21 major public entities as listed in Schedule 2 of the PFMA (The reason for major public entities being selected was due to major public entities being established to operate independent of the fiscal budget (RSA, 2015) and any regression in the entities' financial position would entail that these entities have to be assisted by government financial guarantees or funding (RSA, 2016)); all central government departments (39) that were in existence in the 2014/15 financial year; for the provinces, based on previous audit reports (AGSA, 2015), the departments of two sound provinces (Western Cape (14) and Gauteng (13)) and two weak provinces (Limpopo (13) and North West (12)); for municipalities, all the metropolitan municipalities (8), district municipalities for which annual reports could be obtained (33), and one or more local municipality (37) for each of these districts were selected. Due to the sheer number of annual reports that had to be analysed this method of sampling was selected for feasibility. The sample is broken down as follows: from the central and provincial departments (39%), followed by local municipalities (34%), private sector (18%) and lastly the public entities (9%).

The annual reports were analysed for adherence to the 47 King III requirements. Adherence were coded as a '1' and non-adherence were coded as a '-1'. Certain items, for example number of committee members and number of meetings were recorded as ratio data. In order to convert the 47 items to dimensions, optimal scaling was applied using Cronbach's alpha (threshold 0.6) and the eigenvalue (threshold 1). It is deemed satisfactory for exploratory analysis if the Cronbach's alpha threshold is 0.6 (Hair *et al.*, 2010), measuring the consistency or reliability of the items relating to the identified dimensions. The eigenvalue is a measure of how much of the variance of the observed items a dimension explain. Any dimension with an eigenvalue of greater than one explains more variance than a single observed item. The optimal scaling exercise presented four dimensions before the Cronbach's alpha registered below the satisfaction level.

THEORETICAL FRAMEWORK AND FINDINGS: BEST PRACTISES VERSUS LEGISLATION

This study leans on legitimacy theory in terms of audit committee disclosure – voluntary versus force. System-orientated theories, such as legitimacy theory, stakeholder theory and institutional theory assume that an organisation is influenced by, and in turn have influence upon, the society in which it operates (Deegan, 2002). These theories are often used to explain management's motivation to make voluntary (unregulated) disclosures (Deegan, 2014). Disclosure policies represents an important means by which management can influence external perceptions about their organisation (Suchman, 1995). For this study, leaning on legitimacy theory expands the users of disseminated organisational information from shareholders to the society in which the organisation operates. In particular, since organisational failure, whether private or public, have a societal impact. The notion, therefore, is that organisations may seek societal legitimacy by disclosing information on what society may perceive as advancing good governance, in addition to mandatory disclosure (Shehata, 2014).

Although many studies have investigated the phenomenon of voluntary disclosure, including that of the audit committee (Allegrini & Greco, 2013), most of these studies focus on the disclosure of selected activities of the audit committee. This is due to most guidance documents only addressing a few important aspects of audit committee disclosure (Ghafran & O'Sullivan, 2012). With many of the prominent governance documents, listing requirements as well as legislation including guidance on audit committees, the question arises, what can be seen as 'best practices' in a global context. With the issuing of the second (IoD, 2002) and more so the third (IoD, 2009) King reports, many international scholars (Jackson, 2005; Jones & Solomon, 2013; Atkins *et al.*, 2015) expressed their views that the guidance captured in these reports are viewed as global leading guidance. To determine whether the three King reports were ahead (or at least on par) of their times, they were compared to similar guidance issued in the United Kingdom, due to its Cadbury Report in 1992 being the first globally recognised guidance document on governance. In Table 1, the concepts embedded in the three King reports are compared to the Cadbury Report (The Committee on the Financial Aspects of Corporate Governance, 1992), the Combined Code (FRC 2003) and the UK Corporate Governance Code (FRC 2010), indicating the evolution of audit committee guidance as documented in these guidance documents.

From the presentation it is clear that the King reports have kept up to date with the changes in the audit committee guidance domain, with concepts such as "effective" audit committee; including the public sector sphere into the guidance; and the comprehensive guidance on the functions of the audit committee as well as the chair, all motivating that King III can be seen as 'best practice' of its time. To further address the first objective of the article, the King III requirements for audit committees were

compared to relevant South African legislation with the findings indicating that the best practice requirement is not covered by the relevant pieces of legislation. Of the 47 items, 31.9% were addressed in the Companies Act, 44.7% in the PFMA and 36.2% in the MFMA. Furthermore, no additional items could be identified in these documents that are not included in the King III report. This clearly indicates that the King III report (IoD, 2009) is much more comprehensive in its guidance to audit committees. In some instances, the legislation guidance is even questionable and directly in contrast with sound governance, e.g. where the Accounting Officer (equal to the CEO) appoints audit committee members in consultation with the Executive Authority (equal to the Board).

Therefore, the first objective of the study, to determine whether King III can be regarded as best practice when it comes to audit committee guidance, is achieved.

Table 1: Evolution of audit committee guidance

Element	Cadbury (1992)	King I (1994)	King II (2002)	Combined Code (2003)	King III (2009)	UK CG Code (2010)
Establish	√	√	√	√	Effective Include public sector perspective	
Members	Min. 3 non-executive Majority independent	Min. 1 non-executive Preferable majority non-executive	Majority non-executive Financially literate Board chair not member Review if CEO should be member	Min. 3 (smaller = 2) non-executive and independent One must be financially literate Chair of board not a member Appointed for 3 years for max 3 terms	Min. 3 independent non-executive Financially literate Not chair of board Suitable skilled and experienced Update competence	Min. 3 (smaller = 2) non-executive and independent One financially experienced Chair of board not a member
Chair		Non-executive director Not chair of board	Non-executive director Not chair of board Business, financial and leadership skills		Independent non-executive director Guide the board Lead constructive dialogue	For smaller companies board chair may not be chair of audit committee
Meetings	EA, FD must and IA should attend	EA, IA and FD attend all meetings	Invite board chair to attend Could invite CEO		AC chair determines frequency and timing Invite board chair to attend	
Terms	√	√	√	√	√	√
Functions	Investigate: 4 matters Review: 6 matters	Review: 8 matters	Assess activities and effectiveness of AC Overseer of IAF activities Review: 9 matters	Review: 7 matters	Oversee: stakeholder reporting (17 aspects included); interim results (5 aspects); summarised financial information (6 aspects); integrated sustainability reporting (4 aspects). Review: 7 matters Ensure combined assurance of all risks Consider effectiveness of IAF Part of risk management process	Review: 7 matters

Element	Cadbury (1992)	King I (1994)	King II (2002)	Combined Code (2003)	King III (2009)	UK CG Code (2010)
Interact	Meet alone with EA Recommend EA, fees and resignation / dismissal	Communicate with board chair, CAE, FD CAE report to AC	Arbiter Involved in EA appoint CAE report to AC Meet alone with EA Encourage communication	Recommend EA appointment, remuneration and terms	Meet alone with EA and IA Oversee all assurance providers Recommend appointment/dismissal EA Cooperation between IA and EA	Recommend EA appointment, remuneration and terms
Report in AFS	Membership	Membership	Membership Acceptability if AC has satisfied these	Work of AC Independence of EA when conducting non-audit services	Summary of role Formal terms, satisfied responsibilities Names and qualifications of members Number and attendance of meetings	Work of AC Independence of EA when conducting non-audit services

RESULTS AND SUPPORTING LITERATURE ON DISCLOSURE

To address the second objective, namely to develop variables by which adherence to audit committee best practice may be measured for future use by researchers, organisational stakeholders (audit committees, boards, management, etc.) and related professional bodies to provide guidance to their members, optimal scaling was applied. This resulted in four dimensions and two items. The support for the four dimensions is presented in Table 2.

Table 2: Support for dimensions

Dimension	Eigenvalue	Cronbach's alpha
1	15.601	.956
2	6.706	.869
3	4.097	.772
4	2.392	.595

Although the fourth dimension's Cronbach's Alpha is still acceptable for exploratory research purposes, it also indicated that it was not possible to explore a fifth dimension. Tables 3 to 6 present the four dimensions and their factor loadings and the separate items.

Table 3: Dimension 1 – Financial reporting quality mechanism

King requirement	Loading
Terms of reference approved by Board	0.536
AC meets with external audit annually	0.258
Independence and capacity of AC members	0.212
Chairman of AC is not chairman of board	0.588
AC may consult specialists or consultants subject to a board-approved process	0.342
Board fills AC vacancies	0.321
Board elects AC chair	0.235
Chairman of the audit committee should be present at the AGM	0.349
AC regarded all factors and risks that may impact integrity of integrated report	0.760
AC review disclosure of sustainability issues in integrated report	0.513
AC recommends to the board to engage an external assurance provider on material sustainability issues	0.360
AC ensure that combined assurance received is appropriate to face all significant risk	0.547
AC monitors relationship between external assurance providers and company	0.790
AC performs annual review of the finance function	0.710
Results of finance function review is disclosed in integrated report	0.691
AC oversight of financial reporting risk	0.616
AC oversight of internal financial controls	0.679
AC oversight of fraud risk related to financial reporting	0.524
AC oversight of IT risk related to financial reporting	0.419
AC approves terms and fees of engagement and remuneration of external auditor	0.545
AC monitors and reports on independence of external auditor	0.639
AC informed of reportable irregularities identified and reported on by external auditor	0.352
AC review quality and effectiveness of external audit process	0.450
AC reports to shareholders its satisfaction with independence of external auditors	0.699
AC reports to shareholders whether internal financial controls are effective	0.378
AC recommends integrated report for approval to the board	0.803

Active Total	15.601
% of Variance	33.193

Dimension 1 consists of 26 of the 47 items (55.3%). The dimension was labelled “financial reporting quality mechanism” and may be regarded as the priority focus of audit committee best practice guidance (Contessotto & Moroney, 2014). When analysing the 26 items, three strong themes supported by literature on the audit committee function emerge. First, the audit committee’s interaction with the external auditors (six items), the main assurance provider to external stakeholders. Where Contessotto and Moroney (2014) focus on the association between the effectiveness of the audit committee and external audit risk, their findings suggest that external auditors recognise the substance of governance over its form where the audit committee is concerned. The shift from form to substance is further argued by Turley and Zaman (2007) that audit committees should go beyond what is immediately observable from external disclosures through enhanced informal interactions with the external auditors to strengthen its influence and power relations, to maximise the impact of the audit committee on governance. Secondly, the audit committee’s external reporting oversight responsibilities (Rahman & Fairuzana, 2006; Deloitte, 2017), to ensure information quality (Al-Shaer & Salama, 2017), features strongly in this dimension represented by 14 items. Bédard and Gendron (2010) in particular exerts that the usefulness of increased regulation (compliance approach) regarding, *inter alia*, improved information quality is being questioned and that information on how and why associations happen may provide more insight into the effectiveness of the audit committee in exercising its mandate. The third theme, represented by six items, relates to the independent status of the audit committee (De Zoort *et al.*, 2002; Bédard & Gendron, 2010; Contessotto & Moroney, 2014), supporting the credibility of external audit reporting. De Zoort *et al.* (2002) in particular express the importance of an independent audit committee in ensuring financial reporting quality since it theoretically provides a strong foundation pursuing audit committee effectiveness. However, disclosure with regard to objectivity measures on the composition of the audit committee may recently be preferred above regulated independence characteristics. The expectation is, thus, that organisations disclose more than what is regulated to improve its credibility and enhance stakeholder confidence (Brennan & Kirwan, 2015).

When viewing the disclosure pattern of Dimension 1 the result from the optimal scaling present that out of the 26 items that formed the dimension, 50.2% of the organisations disclosed only eight or less of the items listed. Also, that only 25.5% of the organisations disclosed 20 or more of the 26 items listed in this dimension and 20 organisations disclosing no items. Thus, even though the “financial reporting quality mechanism” dimension may be regarded as a primary responsibility area of the audit committee, disclosure patterns by the organisations in the sample are not high. When comparing the items prescribed by legislation (potential 2 652 disclosure items based on the number of analyses

per legislative sphere) versus the items driven by best practices ($231 \times 26 = 6\,006$), only 2 453 responses were identified by means of the content analyses. Therefore it can be concluded that some organisations did not even disclosed all legislative requirements, and it can be assumed that voluntary disclosure would be even less.

Table 4: Dimension 2 – Functionality and judgement responsibilities

King requirement	Loading
Established AC	0.249
AC meetings minimum of two meetings	0.375
AC members keep up to date	0.324
AC consists of minimum three members	0.220
AC review and comment on Financial Statements	0.399
AC considers the need to issue interim results	0.465
AC review content of summarised information	0.620
AC engage the external auditors to provide assurance on the summarised financial information	0.526
AC risk management role described in charter	0.398
AC reports to board on its statutory and assigned duties	0.484
AC reports to shareholders how statutory duties were carried out	0.471
AC reports to shareholders their view on financial statements and accounting practices	0.459
AC provide summary of role, details on composition, number of meetings and activities in integrated report	0.474
Active Total	6.706
% of Variance	14.268

Dimension 2 consists of 13 of the 47 items (27.7%). Two strong themes emerged, namely the functionality of the audit committee represented by seven items addressing the functioning of the audit committee as well as reporting thereon. In terms of legislated audit committee requirements as well as best practice guidance, audit committee functionality is always one of the first aspects covered. It is only logical that requirements of responsibility can only follow after the functional aspects are established. The second theme namely, “judgement responsibility” represented by six items, refers to activities where in addition to oversight, a higher level of involvement in external reporting is required. Brennan and Kirwan (2015) asserts that the role of the audit committee should shift from performing a review to performing an examination, where stakeholders begin to emphasise the disclosure of praxis (what you did), opposed to reporting on compliance (what you do).

Viewing the disclosure pattern of Dimension 2 the result from the optimal scaling present that out of the 13 items that formed the dimension, 57.2% of organisations disclosed information on 12 or all 13 items and 86.2% disclosed information on eight or more items. Since seven of the items refers to functionality that is mostly present in legislation it is a good indication that organisations disclosed information relating to aspects where the audit committee has a judgement responsibility. Considering the numbers, legislation drives a possible 1 345 disclosure items for all four spheres, when 2 445 disclosures were made for the items in this dimension from a possible 3 003 (261×13),

indicating that, apart from legislation, with regard to judgement responsibility, organisations also disclosed items driven by best practice.

Table 5: Dimension 3 – Internal audit quality

King requirement	Loading
AC meets with internal audit annually	0.162
AC is responsible for the performance assessment of the CAE	0.344
AC ensures that IAF is subject to independent quality review	0.345
Active Total	4.097
% of Variance	8.717

Dimension 3 consists of three of the 47 items (6.4%). The dimension was labelled “Internal Audit Quality” with all items related to oversight of the internal audit function and its head the CAE. The responsibility of the audit committee regarding the internal audit function is well documented (Zaman & Sarens, 2013). Zaman & Sarens (2013) continues the theme of Turley and Zaman (2007) on the value of informal interactions by the audit committee with organisational stakeholders - this time with regard to internal audit functions, stressing the role that informal processes in addition to formal mechanisms play a significant role in good governance.

For this dimension, most organisations disclosed only one or two items (75%), with 49 organisations disclosing none of the items. Furthermore, it seems that the disclosure compares with legislative compliance with 82 legislative disclosures for all four the spheres (only two items for private sector companies), yet there are 291 disclosures identified across the four spheres from a possible 693 (231 x 3). Therefore, although weak, it seems that organisations are not only driven by legislation, but also by best practices.

Table 6: Dimension 4 – Independence of assurance providers

King requirement	Loading
AC is responsible for the appointment/ dismissal of CAE	0.258
AC nominates external auditor for appointment	0.174
AC define policy and approves non-audit services by external auditor	0.209
Active Total	2.392
% of Variance	5.089

Dimension 4 consists of three of the 47 items (6.4%). The dimension identified a single theme that was labelled “independence of assurance providers” with all items related to the appointment of internal and external auditors. Literature strongly identifies the independence of assurance providers as a main responsibility of the audit committee (Bédard & Gendron, 2006; Zaman & Sarens, 2013; Deloitte, 2017). In fact, it may have been one of the very first motivations for the establishment of an audit committee when in the late 1930s the New York Stock Exchange recommended on the back of the McKesson and Roberts Inc. fraud, that external auditors should be selected by a special committee composed of non-officer board members (Ghafran & O’Sullivan, 2013). In Dimension 4, most organisations disclosed two of the three items (90.5%). Also, of the possible 190 disclosures for all four

spheres, 471 disclosure items were identified during the content analyses from a possible 693 (68%). This indicates that not only legislation is driving the disclosure, but also, to a larger extent compared to the other dimensions, best practices.

Additional to the above four dimensions, two items could not be classified into any of the four dimensions. For the item 'AC approves internal audit plan', both the MFMA and the PFMA (190 organisations) drives disclosure with 130 organisations (68.4%) that did comply. As the items 'AC chair involved in setting/agreeing AC agenda' is not a legislative requirement for any of the spheres, disclosure was not further investigated.

CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

Scholars debate for a new dawn for research on audit committees, including research on the wider governance role, its broader social responsibility role and its relevance to stakeholders other than shareholders. With disclosure being the primary means of conveying information to various stakeholders, this paper, underpinned by the legitimacy theory, ties in with this new expectation by determining whether disclosure on audit committees are driven by voluntary disclosure (best practices) or by force (legislation). First, the term 'best practice' for voluntary disclosure for audit committees is established, supporting the notion that the King III guidance can be seen as world leading.

Results from this study support the assertion from practice (Deloitte 2017) that organisations have generally increased disclosure. This is supported by three of the four dimensions with 1) internal audit quality; 2) independence of the assurance providers; and 3) functionality and judgement responsibilities, being driven beyond legislation. Especially the latter dimension, refers to high level activities performed by the audit committee, on top of the normal oversight duties. For the dimension, 'financial reporting quality mechanisms', including the committee's interaction with the external auditors; the committee's external oversight role; and its independence, disclosure is limited. Results confirm that disclosure on this dimension does not even cover the legislated requirements and it can thus be assumed that best practices are probably not covered. As this is the largest dimension, covering 55.3% of all the items, whether disclosure has really increased (as indicated in the Deloitte report) is debatable. The disclosure patterns for Dimension 1 are concerning. Although it cannot be deduced that the activities are not being performed (or it has just not been disclosed), it is only through disclosure that information can be shared with stakeholders to enhance confidence and peace of mind.

Although the results of this study supports the legitimacy theory for audit committee disclosure, more could be done. Policy makers, management and the audit committee should take note that although the study supports the notion of voluntary disclosure, there is still areas that needs improvement. The study adds to the body of knowledge on voluntary disclosure of audit committee best practice to be considered by policy makers and management on what may strengthen the credibility and effectiveness of audit committee oversight as perceived by the stakeholder. The result also presents a foundation for further research within this area, in particular focusing on expanded disclosure within the recommended framework for substantive information on the quality of the audit committee function, opposed to compliance.

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CORPORATE VALUATION OF SAAS COMPANIES: A CASE STUDY OF SALESFORCE.COM

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ABSTRACT

This paper seeks to identify the critical factors determining the valuation of SaaS companies. This newly created business model renders many evaluation metrics inapplicable. This creates a unique sub-industry of such companies for corporate valuation purposes. Salesforce.com is used as the focal company of evaluation, allowing use of and reference to actual data and prices. This paper aims to evaluate the accuracy and relevancy of specific valuation techniques and identify those best suited for a SaaS company. This study uses a single case study research design, allowing for a deeper level of analysis. This paper has found that standard valuation techniques were successfully able to evaluate a stock share price using quarterly financial data. The relative valuation efforts were unable to derive a price range for the company. The peer analysis showed the importance of key factors like growth or profitability or other lifecycle phase at the same time, which becomes evident in the calculated metrics. The calculations performed in this paper shed light on the level of disconnect within the SaaS business model and standard valuation techniques. Companies experiencing higher growth will not compare well with companies of greater profitability. This paper brings momentum toward defining an improved relative valuation metric that more robustly represents the value forecast of a SaaS company, provides technical support for the valuation of SaaS companies, and furthers the discussion of creating new valuation metrics for fast growth start-up firms.

Keywords: SaaS, software as a service, corporate valuation, international finance, global marketing, international business, pay-per-use, pricing strategy, software industry, cloud-based software.

INTRODUCTION

The accurate valuation of companies is vital to ensure that stock markets are reliably efficient and that merger, acquisition, and divestiture events are handled fairly and appropriately. Without this fundamental expectation, stock market volatility and liquidity would suffer. However, not all industry segments can be evaluated using the same criteria, nor will analyst companies fully adhere to the same set of valuation criteria. Due to these factors, as well as overall global economic stability and individual

market crises, a multitude of valuation metrics and processes have been developed, and continue to evolve through the emergence of new business industries and business models.

In particular, the emergence of companies employing the new software as a service (SaaS) business model has created a disconnect between the valuation methods used within this sub-industry and elsewhere. Because this collection of companies has flourished in recent years, thus becoming permanent additions to the corporate landscape, the valuation techniques warrant further understanding. By uncovering these processes, insights are sought to lead to improved accuracy of valuing this particular sub-industry.

For this purpose, this paper shall proceed by discussing the different price-setting models, strategies, and practices and valuation methods of SaaS firms in the literature review. Following this shall be insights found through the application of different valuation methods on the case study firm. This paper concludes by providing the overall comparison of public valuation methods found to be the most effective.

This paper originated from calls for research from Schoenberg (2006) and Weinhardt, Anandasivam, Blau, Borissov, Meinl, Michalk, & Stößer (2009). Schoenberg (2006) analyzed the approach to corporate valuation from the standpoint of an acquisitions company. His research focused on the importance of accurate valuation in order to fairly incorporate performance metrics in which to arrive at a price both parties would agree. One of these performance variables is “price” (Weinhardt, et al., 2009; River Cities, 2017). Weinhardt, et al. (2009) focus on the difference in business models used in SaaS companies over existing technology companies. They directly call for further research comparing valuation methodologies based on business models implemented.

LITERATURE REVIEW

SaaS Pricing Model

This survey has selected salesforce.com as a single case study firm, because it is one of the most famous international high-tech firms using a SaaS price-setting model and due to its stock exchange listing, it grants access to high quality financial data.

SaaS is the abbreviation of software as a service. Instead of investing in salesforce.com’s customer relationship management software, clients acquire a subscription-based license of a cloud-based software package. The license fee can be considered as an operating instead of a capital expenditure.

The first part of this literature review focuses on the theoretical framework to describe the SaaS price-setting strategy, practice, and model of the case study firm.

For the purpose of this survey, the theoretical framework of Neubert (2017a) and Cohen & Neubert (2017) (see also figure 1) will be used to describe the SaaS of salesforce.com as a pay-per-use price-setting model (see also Hollensen, 2016).

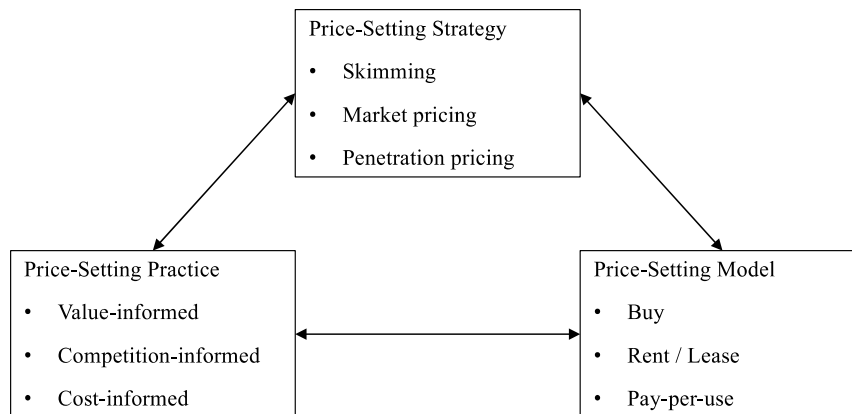


Figure 1. Price-setting practice, strategy, and models (source: Neubert, 2017a)

Accion (2015) presents a report showing the fundamentals of price-setting practices and how they apply to SaaS companies. The article defines the differences between the price-setting practices of cost-informed, competition-informed, and value-informed, then identifies the value-informed price-setting practice as the predominant strategy used by SaaS companies, with the competition-informed price-setting practices used in mainly mature markets. Salesforce.com operates as a pioneer and market leader in the customer relationship management software market using predominately value-informed pricing practices within their skimming based price-setting strategy.

Huang (2014), who performed an industry research covering the range of price-setting models offered, the pricing mechanisms are either usage-based (= pay-per-use), time-based (rent / lease), or a hybrid of the two. A pay-per-use license contract like the one of salesforce.com can use a combination of fixed monthly licensing fees, which are billed annually, plus additional cost if the usage exceeds the defined limit (e.g. number of users) or the client asks for product adaptations or individualizations. Time-based license contracts consist of clients making extended time period reservations, typically for one to three years. Cloud-based SaaS service providers like AWS or salesforce.com carefully balance their pay-per-use fees depending on different factors like for example data storage, data retrieval, or data upload volume (Deelman, Singh, Livny, Berriman, & Good, 2008; Neubert, 2017b). SaaS firms use a buy price-setting model for additional services like for example consulting, training, data storage, or hosting to generate additional revenues (Hall, 2008).

Valuation of SaaS Firms

The valuation of a corporation is influenced by many different variables and each valuation method takes each different variable to a higher or lower (if at all) extent into consideration. This is especially

important for the valuation of high-tech firms with innovative business models, like salesforce.com as an example for a young, fast growing firm, which uses a SaaS pricing model for their cloud-based software products. Thus, this second and final part of the literature review focuses on the impact of a SaaS price-setting model on corporate valuation.

The selection of an appropriate valuation method depends on the lifecycle stage of each firm (Trichkova & Kanaryan, 2015). In every lifecycle stage, growth rates and profitability differ. The case study firm salesforce.com can be characterized as a relatively young firm at the growth stages of its corporate lifecycle using suitable price-setting strategies, practices, and models. In this development stage, the revenue growth rate tends to be higher and the profitability is lower (Neubert & van der Krogt, 2017).

Newton & Schlecht (2016) present historical data for SaaS companies from 2005 to 2016 that indicates a strong trend of total enterprise value (TEV) remaining stable above a 5x multiple over last twelve-month (LTM) revenue. Through use of regression models, they suggest revenue growth is more than twice as important for the valuation of SaaS companies as EBITDA margin. The authors then propose the following formula for predicting a company's TEV/LTM revenue valuation multiple using the two values of LTM revenue growth (percent) and LTM EBITDA margin (percent):

$$\text{Valuation Multiple} = 2.6 + 10.8(\text{LTM Rev. Growth \%}) + 4.7(\text{LTM EBITDA Margin \%})$$

Gardner (2016) confirmed this finding in identifying the revenue growth rate as one of the key factors that go into assessing a firm's revenue multiple for corporate valuation. In the time period, in which this survey analyses the valuation of Salesforce.com, it is profitable but doesn't pay any dividends. Feld Thoughts (2013) presents a combination of revenue growth and profitability that states that a SaaS company's combined monthly recurring revenue (MRR) plus EBITDA profit margin should add up to 40% or above.

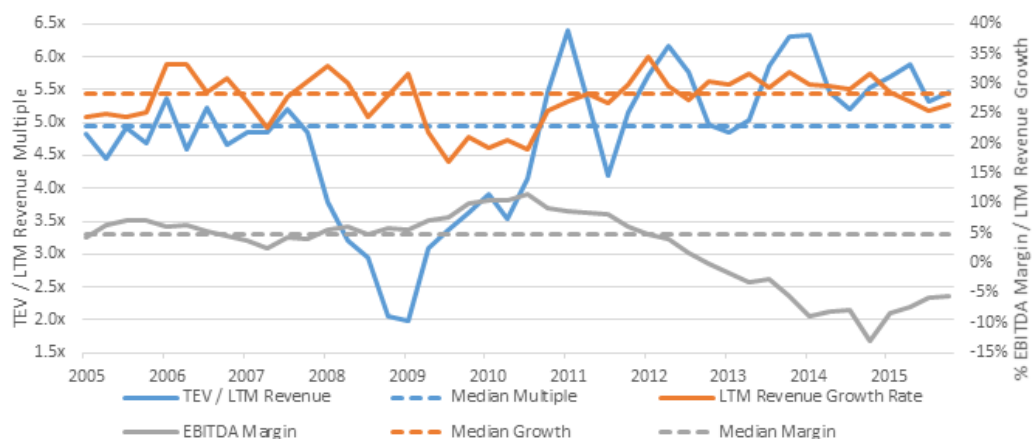


Figure 2. Key metrics for valuing SaaS companies (source: Newton & Schlecht, 2016)

In addition to Newton & Schlecht (2016), Smale (2016) discusses the typified classification of SaaS businesses as having annual profit (seller discretionary earnings, SDE) multiple within the range of 2.5x – 4.0x. This range is a function of many variables, most notably the age of the business, required time of owner involvement, growth trend of business and customer churn rate (Smale, 2016). Tunguz (2016) provides historical data tracking the enterprise value (EV) multiple of SaaS companies over time and identified during this time period sharp changes of the EV / forward revenue multiple void of any notable economic crises or widespread instability. Other key factors to assess the corporate valuation of SaaS firms are size of the target market, customer retention rate, gross margin, and capital efficiency (Gardner, 2016). Smale (2016) further elaborates that a large amount of intrinsic corporate value lies within intangible or qualitative measures of the firm. Examples of this include stability of the earning power, owner-specific business relationships, business traffic attributable to search engines and their algorithms, level of competition within the business niche, and type of customers targeted by the company.

Bancel & Mittoo (2014) asked 356 European valuation experts about their assumptions and estimation methods for their valuation practices. Of the survey respondents, 65% reportedly perform company valuation by using two or three different methods, while 20% of respondents only use one. In defining the debt maturity, roughly 40% of respondents reported using a 10-year maturity while an equal number use a 5-year maturity. The selection of which sovereign bond to use for a risk-free rate is split 63% using the firm's country sovereign bond while 30% choose a AAA country sovereign bond. When calculating the beta of a stock, the selection of the time-period and return intervals vary significantly. 48% of respondents use monthly values, 20% daily, and 19% annual return intervals, while at the same time 53% use a time-period between one to three years, 37% use more than three years. Then, 46% of all respondents do not adjust the historical beta to estimate future beta as is called for in the CAPM model. The survey also highlights the difficulty in arriving at the same input values for the models. Focusing on one of the most critical model inputs, market risk premium, the results show how the financial crisis of 2008 negatively influenced the accuracy of estimations. The precise variability of this input may not be evident; however, the trend of survey responses is much more so (figure 3):

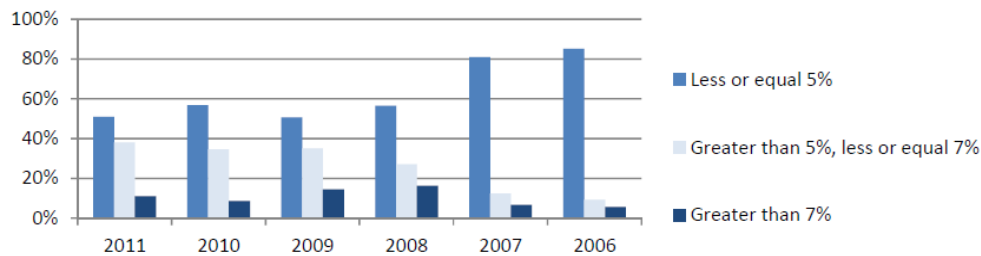


Figure 3. Survey respondents' estimation of market risk premium changing in the years around the 2008 financial crisis (source: Bancel & Mittoo, 2014)

Kellogg (2013) presents the case for growth driving SaaS companies principally because of the early stage of development both for the sub-industry as well as the individual companies. Kellogg (2013) and Shah (2014) provide supporting evidence as to why profitability is not a key driver in company valuation by calculating a cross-plot of forward EV/revenue multiple versus forward revenue growth rate to illustrate the strength of correlation between the two metrics (figure 4).

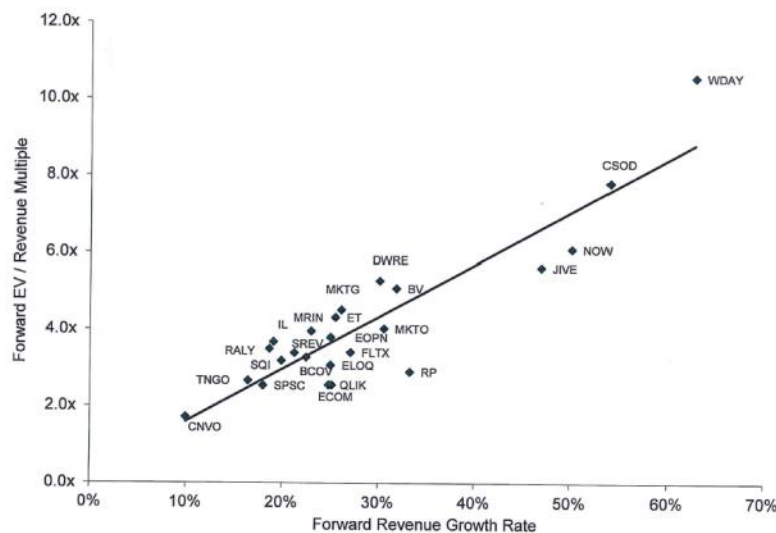


Figure 4. Cross-plot of SaaS company EV multiple relative to revenue growth (source: Kellogg, 2013)

The results find that even when the textbook standard models for company valuation are used, the textbooks don't fully define how to derive all input variables and key factors (Festel, Wuermseher & Cattaneo, 2013). In addition, the company lifecycle is discussed as a means to justify the ease of transition between ownership or to create a sense of urgency (also compare to Trichkova & Kanaryan, 2015).

As the literature research has shown, significant amounts of research have been made towards the three principle areas of this study; SaaS business models, SaaS price-setting practices, and SaaS corporate valuation. However, no prior research has been performed that investigates the intersection of these three. Therefore, this survey contributes to the impact of pricing decisions on corporate valuation of SaaS firms using the following adapted theoretical framework (see figure 5).

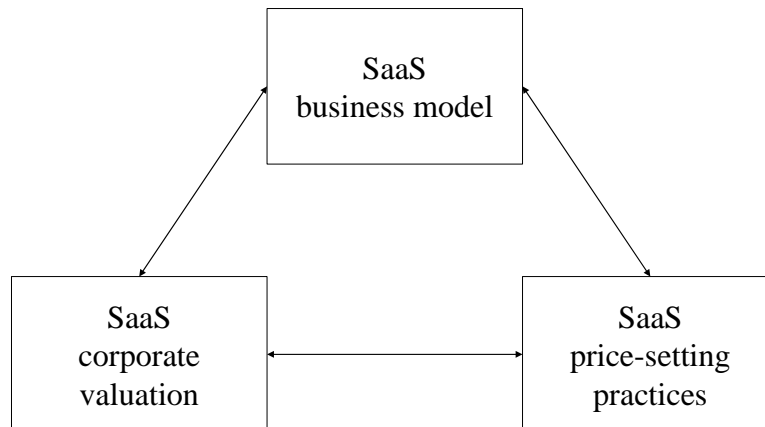


Figure 5. The intersection of SaaS business models, price-setting practices, and SaaS corporate valuation (source: the authors)

RESEARCH METHODOLOGY

This survey uses a qualitative single case study research methodology (Scholz & Tietje, 2002; Yin, 2015). Individual stock and market index data were collected from publicly available websites. The main stock in focus was then analyzed using widely accepted evaluation equations, followed by advanced analysis techniques gathered from more recent academic literature and reputable online sources, partially in comparison to selected peers. The findings from these techniques are then discussed to compare valuation estimates as well as applicability towards the SaaS profit model.

The purpose of this qualitative single case study has led to the following research question:

How do relative and DCF-based corporate valuation methods reflect the stock price value of SaaS software firms?

For the purpose of bringing specific discussion points and values to this paper, the company salesforce.com is chosen to be the focal company of evaluation. In actuality any young and growing company in the sub-industry would suffice, and no particular bias towards this company shall be given. This paper aims to be objective and insightful towards the accurate portrayal and valuation of this and any other SaaS company.

CORPORATE VALUATION

Corporate valuation equations and metrics have been derived, defined, and further developed continuously since the advent of stock markets. Understanding a company's fundamental metrics and profitability became the basis of comparison with its peer companies. Most every modern economics textbook covers the breadth of these calculations. Therefore, without providing derivations or explanation for the following calculations, the standard valuation metrics are provided below.

Discounted Cash Flow

The corporate valuation calculations can be separated into two main groups: the discounted cash flow (DCF) method (including variants), and relative valuation (RV) framework (Bancel & Mittoo, 2014). The first method involves calculating the net present value (NPV) for the stock's dividend, current cash flow, and forecasted cash flow growth. The summation of these three values is the resulting valuation of the company. Specific to salesforce.com, there have been no dividends granted to date, thus related metrics each calculate to zero.

As seen in figure 6, the calculations match considerably well with the actual price history. Because of the year-over-year equations being used, most of the short financial history is insufficient for calculating corporate value. However, in the four quarters that are computed the calculation accuracy is within 5%, substantially within the margin of error when taking into account non-financial sources such as news releases, macro-economic forces, and price change momentum.

The DCF method was successfully used to derive a corporate valuation of Salesforce.com of \$78.91 per share using data through Q4 2017 fiscal quarter (31 January 2017). This estimation compares amazingly well to the stock price of \$79.10 per share on the same day. This corresponds to a 0.24% difference (compare to figure 6).

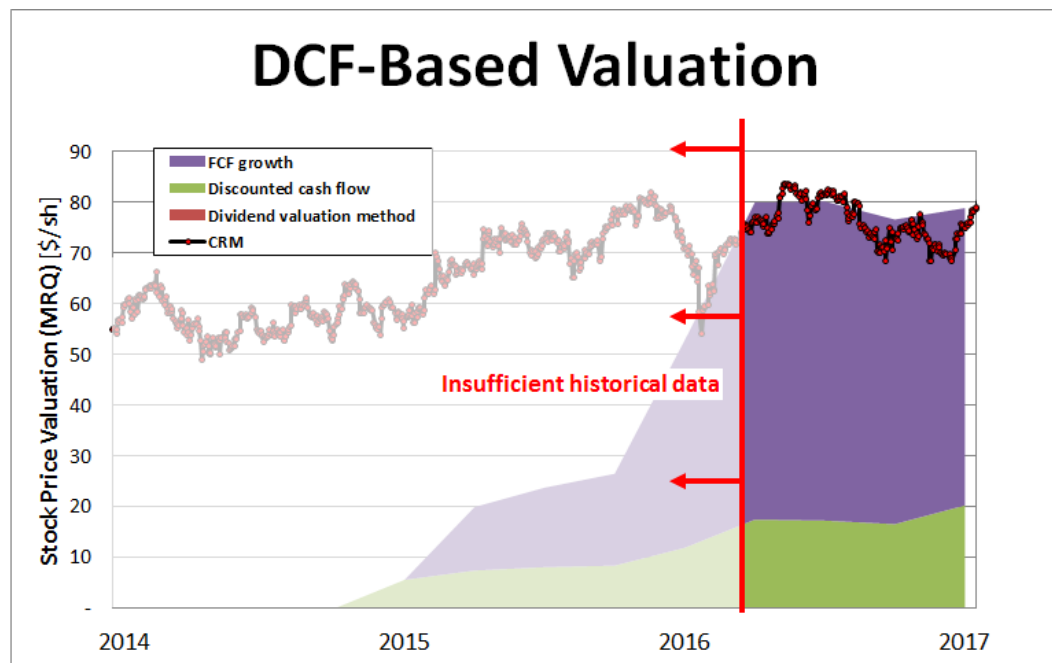


Figure 6. DCF-based valuation of the case study firm

Although the cash flow being generated by the company has created value, the bulk of the valuation comes from the free cash flow growth rate being experienced and the expectation for continued growth in future quarters, which is in line with the findings of Newton & Schlecht (2016). This important finding shows the shareholders and managers of SaaS software firms how to increase their corporate valuation. One growth driver is the use of a SaaS price-setting model (River Cities, 2017). As the example of our case study firm salesforce.com shows, every additional user or every additional activity a user performs (e.g. increase of required storage or download volume), immediately result in higher sales revenues.

The calculations of the DCF-based valuation use the CAPM model using the formula: $r_a = r_f + \beta_a (r_m - r_f)$. Figure 7 shows the parameters, results, and input factors and figure 8 additional support for these calculations.

		rf	rm	β	ke			
Company:	Salesforce	CRM	2.13%	8.23%	1.26	9.79%	CRM	
							Price	P/E
							\$ 89.04	340.32
								Div yield
								0.00%
		Int	Debt	kd				
CRM		89	2,826	3.15%	Equity	Debt	tax	WACC
					7,500	10,085	39.1%	5.28%
					43%	57%		

Figure 7. WACC calculations within the standard CAPM model (source: the authors)

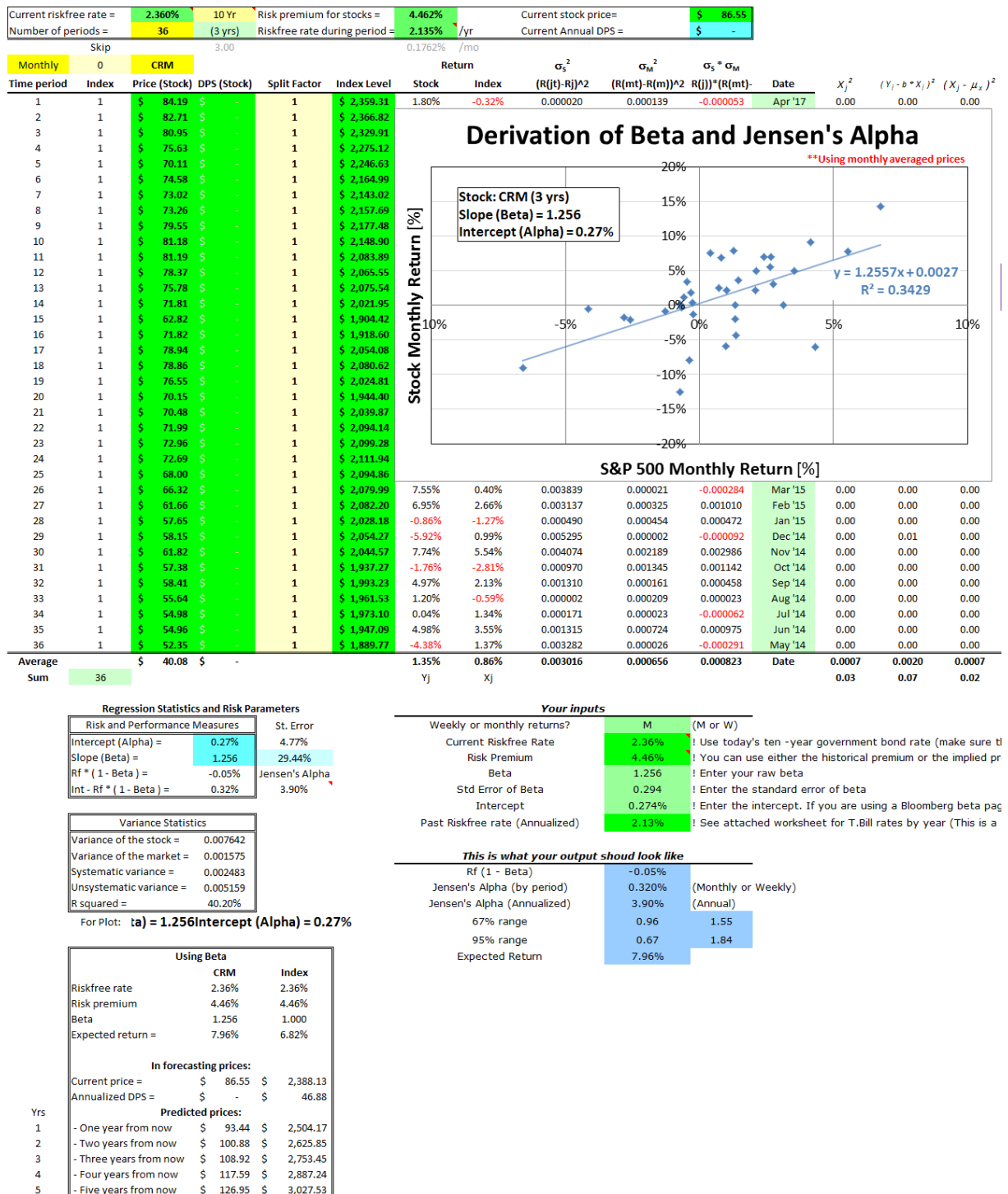


Figure 8. Derivation of beta and Jensen's alpha using 36 month period (source: the authors)

Relative Valuation

Relative valuation methods are based on the valuation of stock-listed companies within the same industry, also called peers or comparable companies, and with similar characteristics (Atrill, 2005). Relative valuation methods might be used for the valuation of both stock-listed and private companies (Atrill, 2005). This qualitative single case study uses six relative valuation methods: Price-Earning-Ratio

(PER), Forward PER, Price-Earning to Growth-Ratio (PEG), Price-Sales-Ratio, Price-Book-Ratio, and Price-Cash-flow-Ratio. The equations used to apply these methods in this qualitative single case study are:

- Price-Earning-Ratio (PER) = Price per Share / Earnings per Share (EPS)
- Forward PER = Price per Share / Forecasted EPS
- Price-Earning to Growth-Ratio (PEG) = PER / EPS Growth
- Price-Sales-Ratio (PSR or sales / revenue multiple) = Price per Share / Sales per Share (generally over a 12-month period)
- Price-Book-Ratio = Price per Share / Book Value per Share (where book value per share = (total assets – total liabilities) / number of shares)
- Price-Cash-flow-Ratio = Price per Share / Cash flow per Share

Relative valuation does not provide a method of calculation for precisely valuing a company. Instead, it provides a range of value metrics of a company's peer group from which reasonable price estimates can be bracketed. The selected peer group consists of SAP, Adobe, Citrix, DXC, Blackbaud, Cognizant, and VM Ware (compare to figure 9).

With these estimations, it is possible to gauge if a stock is valued high, low, or on target relative to its peer/comparable companies. Caution is to be used with this method to ensure validity in company comparison, particularly taking into account the company size, sub-industry, business model, growth focus, lifecycle phase, location, accounting policies, accounting years, operational, and dividend policies (Atrill, 2005).

The findings of the relative valuation suggest that traditional relative valuation methods will not work at this point in the company's lifetime with this peer group set. In fact, the relative valuation methods don't take into consideration the above-the-average expected free cash flow growth rate shown in the DCF valuation. Thus, the selection of an appropriate corporate valuation method for a SaaS firm depends on the stage of a firms' development (Trichkova & Kanaryan, 2015).

MorningStar comparison between CRM and peer companies									
		Salesforce	SAP SE	Adobe Sys	Blackbaud	Cognizant	Citrix	DXC	VM Ware
Shareholder Equity		CRM	SAP	ADBE	BLKB	CTSH	CTXS	DXC	VMW
Shares Outstanding	M	711	1,199	495	48	589	151	283	407
Market Cap	\$B	63.9	126.0	67.5	3.9	38.5	12.5	22.1	37.6
Enterprise Value	\$B	-	-	-	-	-	-	-	-
Institutional Ownership	%	84.39%	3.71%	89.20%	0.00%	89.14%	0.00%	0.00%	39.09%
# Floating Shares	M	587	-	494	32	585	156	141	35
Short Int as % of Float	%	2.55%	0.00%	0.98%	20.05%	3.50%	4.19%	4.39%	67.90%
Beta	-	1.64	1.25	1.03	1.01	0.95	1.38	1.38	0.73
Financial Strength									
Total Current Ratio	-	0.83	1.20	1.95	0.68	3.03	1.28	1.15	2.27
Quick Ratio	-	0.75	1.14	1.86	0.22	2.83	1.16	1.03	2.19
D/A	-	0.11	0.11	0.14	-	-	0.27	0.35	-
D/E	-	0.27	-	0.25	1.42	0.08	0.78	1.16	0.19
LT D/E	-	-	-	-	-	-	-	-	-
Debt Ratio	-	-	-	-	-	-	-	-	-
Int Coverage	-	1.29	0.17	0.24	0.06	1.22	0.15	-0.00	0.58
Valuation (MRQ)									
Date	-	14 May '17	19 May '17	19 May '17	19 May '17	19 May '17	19 May '17	19 May '17	19 May '17
Stock Price	\$/sh	\$ 89.04	\$ 105.08	\$ 136.43	\$ 80.34	\$ 65.42	\$ 82.79	\$ 78.07	\$ 92.52
P/E (TTM)	-	342.50	31.60	52.10	81.20	23.80	24.50	-	33.30
Forward P/E	-	58.10	19.60	27.40	34.30	15.40	16.20	9.50	18.00
PEG Ratio (5 yr)	-	2.30	2.50	1.30	2.50	1.40	1.70	0.40	1.90
P/Sales (TTM)	-	7.40	5.00	11.20	5.10	2.90	3.80	1.50	5.50
P/Book	-	8.40	4.20	8.90	15.60	3.90	7.20	11.60	4.60
P/Tangible Book	-	-	-	-	-	-	-	-	-
P/Cash Flow	-	28.80	22.60	28.20	23.90	21.80	12.70	12.90	16.50
Enterprise Value/Revenue	-	-	-	-	-	-	-	-	-
Enterprise Value/EBITDA	-	-	-	-	-	-	-	-	-
Book Value/Share	\$/sh	-	-	-	-	-	-	-	-
Profitability (TTM)									
Gross Margin	%	73.38%	70.03%	86.04%	53.73%	39.36%	83.57%	25.70%	85.15%
Operating Margin	%	0.77%	22.08%	26.90%	8.29%	16.67%	19.77%	1.50%	20.29%
EBITDA Margin	%	-	-	-	-	-	-	-	-
Pre-Tax Margin	%	0.30%	21.17%	26.06%	6.92%	17.48%	18.99%	-2.31%	20.77%
Effective Tax Rate	%	-	24.94%	18.12%	9.29%	30.99%	17.97%	-	19.48%
Net Profit Margin	%	2.14%	15.89%	21.34%	6.28%	12.07%	14.03%	-1.44%	16.72%
Earnings per Share, EPS	\$/sh	0.26	2.99	2.62	0.99	2.75	3.04	-0.78	2.78
Mgmt Effectiveness (TTM)									
Return on Asset, ROA	%	1.18%	7.94%	10.53%	4.29%	12.66%	8.83%	-1.33%	7.32%
Fin Leverage	-	2.34	1.78	1.72	4.48	1.37	3.09	4.36	2.06
Return on Equity, ROE	%	2.87%	14.49%	17.90%	20.29%	17.03%	25.27%	-5.24%	14.81%
Return on Inv Cap, ROCE	%	2.91%	14.46%	14.39%	9.05%	14.69%	15.04%	-1.24%	12.04%
Growth Rate (TTM)									
Earnings per Share, EPS	%	100.00%	-10.42%	60.00%	118.18%	27.78%	-68.52%	-30.00%	17.05%
Sales	%	26.78%	11.80%	21.56%	8.49%	10.74%	-19.74%	9.54%	8.83%
Dividend (MRQ)	%	-	-	-	-	-	-	-	-
Dividend (TTM)									
Dividend Yield	%	-	1.30%	-	0.60%	0.20%	-	0.70%	-
Payout Ratio	%	-	39.30%	-	48.50%	-	-	-	-
Annual Dividend	\$/sh	-	1.18	-	0.48	-	-	0.56	-
Operating Ratios (TTM)									
Asset Turnover	%	55%	50%	49%	68%	105%	63%	92%	44%
Fixed Assets Turnover	%	479%	943%	761%	1,465%	1,074%	1,076%	774%	652%
Inventory Turnover	%	-	-	-	-	-	4,103%	-	-
Receivables Turnover	%	295%	372%	849%	882%	557%	731%	450%	407%
Unique Data		33	34	34	35	34	34	33	33
Range Coloring		Low: <80%	Low: 80%→99%	Within 1%	High: 101%→120%	High: >120%			

Figure 9. Relative valuation comparison between CRM and seven comparable peer-group companies (source: Morningstar 2017)

As observed in the below graph (figure 10), all six of the relative valuation metrics estimate a corporate valuation below the current stock price. These six relative valuation metrics are: Price-Earning-Ratio (PER), Forward PER, Price-Earning to Growth-Ratio (PEG), Price-Sales-Ratio, Price-Book-Ratio, and Price-Cash-flow-Ratio. Thus, it can be assumed that the traditional relative valuation methods don't reflect the full price paid at a stock exchange of fast growing high-tech firms.

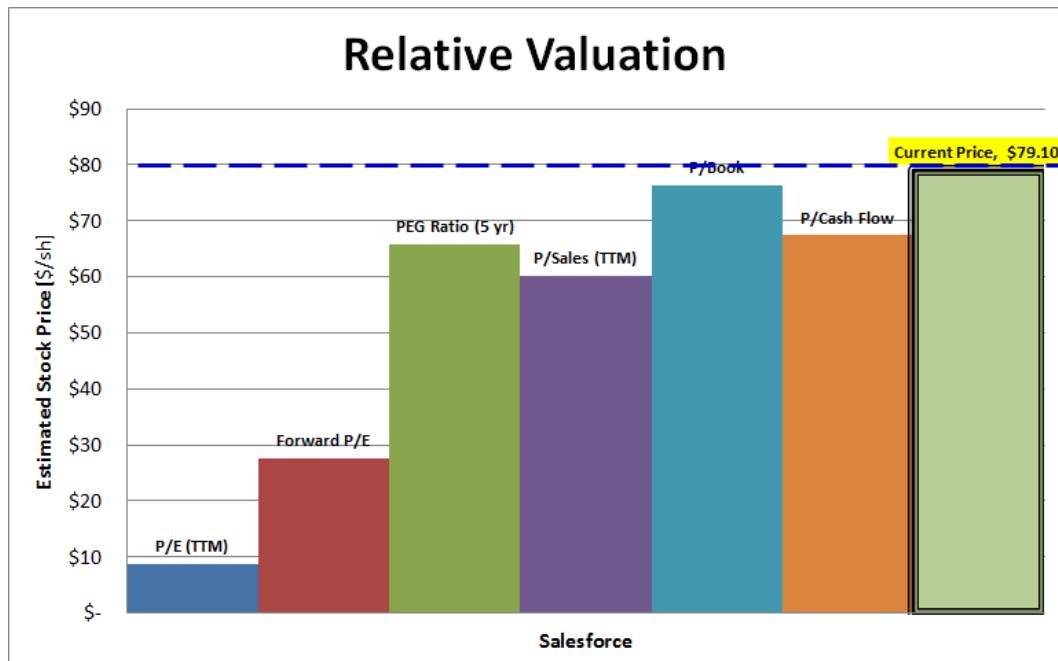


Figure 10. Relative valuation of salesforce.com using six metrics from seven comparable companies
(source: authors)

CONCLUSIONS

The standard valuation calculations were successfully used to derive a corporate valuation for Salesforce.com of \$78.91 per share using data through Q4 2017 fiscal quarter (31 January 2017). This estimation compares well to the actual stock price of \$79.10 per share on the same day. This corresponds to a 0.24% difference.

The relative valuation process did not favorably estimate the valuation of salesforce.com through comparison with comparable peer companies. The four closest comparisons estimate a valuation of \$67.42 per share, or 17% difference with the price at the end of Q4 2017. This discrepancy is perceived to be due to the higher growth phase of salesforce.com as compared to the comparable companies, and thus suggests that company lifecycle is of greater importance when selecting a peer set.

The literature search highlighted several additional concerns for company valuation that cannot be quantified. Such important characteristics of a company emphasize the human component required in the valuation team, and no clear and conclusive conversion to a mathematical formulation has been derived.

The guidelines on using rule-of-thumb estimates is that they are only valid when the situation is analogous to when the rule was first derived. The changing financial climate of the increasingly interconnected and interdependent world is creating situations more complex than ever before. All observations made here are strictly limited to SaaS companies and within the short timeframe of the

past ten years. Their applicability toward the future is only as valid as the assumption that the future shall be stable and predictable.

The reliability, validity, and generalizability suffers from the traditional limitations of single case study research designs. Therefore, we call for further research about this interesting topic with other comparable SaaS companies. Further, future studies would highly benefit from the analysis of more than four financial quarters.

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DIFFERENT METHODS TO ESTIMATING THE COST OF EQUITY. AN ANLYSIS ON A SAMPLE OF TOO BIG TO FAIL BANKS

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ABSTRACT

In this study a comparison was made between the Capital Asset Pricing Model, the most widely used methodology, and an actuarial method with the use of Credit default swaps and the method based on the inverse of the multiple P/E. These three models are used to estimate the cost of equity. The comparison was made on a sample of 24 banks selected among the largest for assets in the world (Too big to fail banks) belonging to eleven different countries.

The results show that the CAPM estimates a premium for the higher risk than the one obtained with the actuarial method and the method based on the inverse of the P/E (except for 2013).

Keywords: Cost of equity, CDS, probability of default, Price to Earnings Ratio

1.INTRODUCTION

The methods based on expected flows, both income and financial, are those most used in professional practice for the estimation of equity value. In applying these methods, the discounting rate is the "critical factor" because an incorrect estimate can lead to misleading results in determining the economic value of a company (Guatri, 1998; Koller et al., 2010; Zanda et al., 2006)

This paper presents a comparison between different methods for determining the cost of equity: the Actuarial Method based on the determination of the probability of default (PD) by means of Credit default swaps, the C.A.P.M. and finally the method based on the use of P/E.

2.SAMPLE SELECTION

The comparison is carried out on a sample of 24 large international banks (the so-called too big to fail) for a period from 2012 to 2014. The selected banks are in ascending order of total value of assets (table n. 1).

Banks	Country	Totale Assets US billions \$
HSBC Holdings plc	UK	2,627,027,600
JPMorgan Chase & Co	USA	2,573,126,000
BNP Paribas	France	2,503,748,814
Barclays Bank plc	UK	2,108,682,111
Bank of America Corporation	USA	2,104,534,000
Deutsche Bank AG	Germany	2,057,845,491
Credit Agricole S.A.	France	1,918,232,414
Citigroup Inc.	USA	1,842,530,000
Royal Bank of Scotland plc	UK	1,634,301,221
Societe Generale	France	1,574,349,661
Banco Santander S.A	Spain	1,504,391,973
Lloyds Banking Group plc	UK	1,325,155,280
ING Groep N.V.	Netherlands	1,199,167,024
UBS AG	Switzerland	1,057,768,565
Credit Suisse Group AG	Switzerland	927,027,630
The Goldman Sachs Group Inc.	USA	851,059,000
Royal Bank of Canada	Canada	832,445,848
Morgan Stanley	USA	801,510,000
Banco Bilbao Vizcaya Argentaria	Spain	749,112,552
Standard Chartered plc	UK	725,394,883
Commerzbank AG	Germany	670,194,767
DANSKE BANK A/S	Denmark	560,946,197
Nomura Bank International plc	Japan	421,498,488
Macquarie Group Ltd	Australia	141,925,236

Table n.1

The banks belonging to the sample belong to 11 different countries and they are distributed according to the following table:

Country	# Banks
Australia	1
Canada	1
Denmark	1
France	3
Germany	2
Japan	1
Netherlands	1
Spain	2
Switzerland	2
UK	5
USA	5
Totale	24

Table n.2

3.THE DETERMINATION OF THE COST EQUITY USING THE ACTUARIAL METHOD BASED ON THE DETERMINATION OF THE PD THROUGH CREDIT DEFAULT SWAPS

According to the model proposed by Bierman and Hass in 1975 and Cheung in 1999, a similar approach is used in the following to estimate a risk-adjusted rate for the equity. Assume that:

- o investors are risk-neutral;
- o p is the probability of default;
- o entrepreneur/equity investors receive nothing in the case of default;
- o there is no tax.

So the model to calculate the cost of equity is:

$$K_e = (i_1 + PD)/(1 - PD) \quad [1]$$

Where:

K_e is the cost of equity;

i_1 is the free-risk rate as benchmark is used the 10 years Government bond;

PD is the probability of default.

The first phase was the determination of the 5-year default credit spread of the chosen sample for a period of three years (2012-2014). As it can be seen in the table n. 3 there are, for each year, the prices of Credit default swaps spreads and related ratings provided by Moody's.

Banks	Country	2012		2013		2014	
		5Y CDS	Moody's	5Y CDS	Moody's	5Y CDS	Moody's
Banco Bilbao Vizcaya Argentaria	Spain	3.91%	Baa3	1.62%	Baa3	0.88%	Baa2
Banco Santander S.A	Spain	3.70%	Baa2	1.94%	Baa2	0.88%	Baa1
Bank of America Corporation	USA	2.18%	Baa2	1.01%	Baa2	0.72%	Baa2
Barclays Bank plc	UK	1.87%	A2	1.18%	A2	0.68%	A2
BNP PARIBAS	France	2.09%	A2	1.09%	A2	0.69%	A1
CITIGROUP INC	USA	2.02%	Baa2	0.96%	Baa2	0.77%	Baa2
Commerzbank AG	Germany	2.41%	A3	1.38%	Baa1	0.94%	Baa1
Credit Agricole S.A.	France	2.65%	A2	1.39%	A2	0.76%	A2
Credit Suisse Group AG	Switzerland	1.53%	A2	0.90%	A1	0.61%	A1
Danske Bank	Denmark	0.84%	Baa1	0.84%	Baa1	0.75%	A3
Deutsche Bank AG	Germany	1.64%	A2	0.96%	A2	0.79%	A3
HSBC Holdings plc	UK	1.24%	Aa3	0.82%	Aa3	0.54%	Aa3
ING GROEP NV-CVA	Netherlands	2.16%	A3	1.10%	A3	0.61%	A3
JPMorgan Chase & Co	USA	1.15%	A2	0.82%	A3	0.63%	A3
Lloyds Banking Group plc	UK	2.44%	A3	1.17%	A3	0.63%	A2
MACQUARIE	Australia	2.36%	A2	1.24%	A2	0.94%	A2
MORGAN STANLEY	USA	3.01%	Baa1	1.25%	Baa2	0.84%	Baa2
Nomura Bank International plc	Japan	3.23%	A3	1.15%	Baa3	0.86%	Baa1
Royal Bank of Canada	Canada	0.51%	Aa3	0.51%	Aa3	0.33%	Aa3
Royal Bank of Scotland plc	UK	2.52%	Baa1	1.49%	A3	0.79%	Baa1
Societe Generale	France	2.66%	A2	1.36%	A2	0.86%	A2
Standard Chartered plc	UK	1.33%	A2	1.15%	A2	0.96%	A2
The Goldman Sachs Group Inc.	USA	2.27%	A3	1.18%	Baa1	0.86%	Baa1
UBS AG	Switzerland	1.65%	A2	0.82%	A2	0.52%	A2

Table n.3

The second phase consisted in determining the PD based on the relationship based on the work of two Fitch researchers (rating agency) Grossman and Hansen (2010). The model is the following with the Loss severity equal to 60%.

$$PD = CDS5y / \text{Loss severity} [2]$$

In the following table the probability of bankruptcy for the years examined was determined.

	2012	2013	2014
Banks	PD	PD	PD
BBVA	6.52%	2.70%	1.47%
Banco Santander S.A	6.16%	3.23%	1.47%
Bank of America Corp.	3.63%	1.68%	1.20%
Barclays Bank plc	3.12%	1.97%	1.13%
BNP PARIBAS	3.48%	1.82%	1.15%
CITIGROUP INC	3.37%	1.60%	1.28%
Commerzbank AG	4.02%	2.30%	1.57%
Credit Agricole S.A.	4.42%	2.32%	1.27%
Credit Suisse Group AG	2.55%	1.50%	1.02%
Danske Bank	2.07%	1.40%	1.25%
Deutsche Bank AG	2.73%	1.60%	1.32%
HSBC Holdings plc	2.07%	1.37%	0.90%
ING GROEP NV-CVA	3.60%	1.83%	1.02%
JPMorgan Chase & Co	1.92%	1.37%	1.05%
Lloyds Banking Group plc	4.07%	1.95%	1.05%
MACQUARIE	3.93%	2.07%	1.57%
MORGAN STANLEY	5.02%	2.08%	1.40%
Nomura Bank International plc	5.38%	1.92%	1.43%
Royal Bank of Canada	2.17%	0.85%	0.55%
Royal Bank of Scotland plc	4.20%	2.48%	1.32%
Societe Generale	4.43%	2.27%	1.43%
Standard Chartered plc	2.22%	1.92%	1.60%
The Goldman Sachs Group Inc.	3.78%	1.97%	1.43%
UBS AG	2.75%	1.37%	0.87%

Table n.4

Subsequently, for each country the value of 10-year nominal risk-free rates (the government bonds of the various countries under analysis) for the three-year period 2012-2014 was determined. (table 5).

Risk free rate 10y Government Bonds			
Country	2012	2013	2014
Australia	2.80%	3.74%	3.43%
Canada	1.66%	2.43%	2.23%
Denmark	1.05%	1.73%	1.25%
France	2.23%	2.18%	1.64%
Germany	1.25%	1.56%	1.20%
Japan	0.77%	0.81%	0.54%
Netherlands	1.69%	1.97%	1.43%
Spain	6.64%	4.79%	2.89%
Switzerland	0.44%	1.01%	0.60%
UK	1.47%	2.50%	2.73%
USA	1.50%	2.60%	2.52%

Table n.5

Lastly, the cost of equity was determined using the formula [1]. The results are summarized in the following table:

	2012	2013	2014
Banks	Ke	Ke	Ke
BBVA	14.07%	7.70%	4.42%
Banco Santander	13.64%	8.29%	4.42%
Bank of America	5.33%	4.36%	3.76%
Barclays Bank plc	4.74%	4.56%	3.90%
BNP PARIBAS	5.92%	4.12%	2.82%
CITIGROUP	5.04%	4.27%	3.85%
Commerzbank	5.48%	3.95%	2.81%
Credit Agricole	6.96%	3.49%	2.94%
Credit Suisse Group	3.07%	2.55%	1.64%
Danske Bank	3.18%	3.17%	2.53%
Deutsche Bank	4.09%	3.21%	2.55%
HSBC	3.61%	3.92%	3.66%
ING GROEP	5.48%	3.88%	2.47%
JPMorgan Chase	3.48%	4.02%	3.61%
Lloyds Banking	5.77%	4.54%	3.82%
MACQUARIE	7.01%	5.93%	5.08%
MORGAN STA.	6.86%	4.79%	3.97%
Nomura Bank	6.50%	2.78%	2.00%
Royal Bank of Can.	3.91%	3.00%	2.79%
Royal Bank of Scot.	5.92%	5.11%	4.10%
Societe Generale	6.98%	4.55%	3.12%
Standard Chart.	3.77%	4.51%	4.40%
The Goldman Sachs	5.49%	4.66%	4.01%
UBS AG	3.28%	2.77%	1.48%

Table n.6

4.THE DETERMINATION OF THE COST OF EQUITY THROUGH THE CAPM.

The cost of equity can be calculated through the use of the famous Capital Asset Pricing Model (CAPM) (Sharpe, 1964), according to the well-known formula:

$$K_e = i_1 + \beta * (R_m - i_1) \quad [3]$$

Where

K_e is the cost of equity;

i_1 is the free-risk rate as benchmark is used the 10 years Government bond;

β is beta factor that represent the systematic risk;

$R_m - i_1$ is the equity risk premium (ERP).

In this case, the "beta-factors" provided by Datastream-Thompson Reuters for the years 2012, 2013 and 2014 were used. The results are summarized in the following table:

	2012	2013	2014
Banks	β	β	β
BBVA	1.611	1.644	1.513
Banco Santander	1.510	1.491	1.340
Bank of America	2.345	2.409	1.928
Barclays Bank plc	2.710	2.730	1.880
BNP PARIBAS	1.387	1.409	1.588
CITIGROUP	2.949	3.011	2.038
Commerzbank	1.921	1.934	1.611
Credit Agricole	1.760	1.822	2.101
Credit Suisse Group	1.676	1.677	1.553
Danske Bank	1.690	1.740	1.450
Deutsche Bank	1.570	1.591	1.403
HSBC	1.227	1.336	0.973
ING GROEP	2.497	2.665	2.322
JPMorgan Chase	1.521	1.517	1.425
Lloyds Banking	2.420	2.530	2.080
MACQUARIE	1.809	1.718	1.315
MORGAN STA.	2.263	2.322	1.789
Nomura Bank	1.600	1.670	1.780
Royal Bank of Can.	0.890	0.910	0.770
Royal Bank of Scot.	2.500	2.510	1.520
Societe Generale	2.010	2.125	2.404
Standard Chart.	1.350	1.290	1.260
The Goldman Sachs	1.500	1.489	1.519
UBS AG	1.858	1.724	1.520

Table n.7

The market premium (E.R.P.) for the years 2012, 2013 and 2014 of the countries belonging to the banks, it is taken from the work of Fernandez, Linares and Fernandez Acín (2014).

	Equity risk premium %		
Country	2012	2013	2014
Australia	5.90	6.80	5.90
Canada	5.40	5.40	5.30
Denmark	5.50	6.40	5.10
France	5.90	6.10	5.80
Germany	5.50	5.50	5.40
Japan	5.50	6.60	5.30
Netherlands	5.40	6.00	5.20
Spain	6.00	6.00	6.20
Switzerland	5.40	5.60	5.20
UK	5.50	5.50	5.10
USA	5.50	5.70	5.40

Table n.8

Using the formula [3] we have determined the cost of equity for the 24 banks in the period 2012-2014, the results are presented in table n. 9.

	2012	2013	2014
Banks	Ke	Ke	Ke
BBVA	16.30%	14.65%	12.27%
Banco Santander	15.69%	13.74%	11.19%
Bank of America	14.39%	16.33%	12.93%
Barclays Bank plc	16.38%	17.52%	12.31%
BNP PARIBAS	10.42%	10.78%	10.85%
CITIGROUP	17.72%	19.77%	13.52%
Commerzbank	11.81%	12.20%	9.90%
Credit Agricole	12.62%	13.30%	13.83%
Credit Suisse Group	9.49%	10.40%	8.68%
Danske Bank	10.35%	12.86%	8.65%
Deutsche Bank	9.88%	10.31%	8.78%
HSBC	8.22%	9.85%	7.69%
ING GROEP	15.17%	17.96%	13.50%
JPMorgan Chase	9.86%	11.25%	10.22%
Lloyds Banking	14.78%	16.42%	13.33%
MACQUARIE	13.47%	15.42%	11.19%
MORGAN STA.	13.95%	15.84%	12.18%
Nomura Bank	9.57%	11.84%	9.97%
Royal Bank of Can.	6.47%	7.35%	6.31%
Royal Bank of Scot.	15.22%	16.31%	10.48%
Societe Generale	14.09%	14.60%	15.59%
Standard Chart.	8.90%	9.60%	9.15%
The Goldman Sachs	9.75%	11.09%	10.72%
UBS AG	10.48%	10.66%	8.51%

Table n.9

5.THE DETERMINATION OF COST OF EQUITY THROUGH THE USE OF THE INVERSE OF THE MULTIPLE P/E

The estimation method in question takes its cue from Gordon's well known formula, in perpetual regime; for determining the value of a company. The formula is:

$$P = D / (K_e - g) \quad [4]$$

Where:

P = price;

D is the average expected dividend flow of the company taken into consideration;

K_e is the cost of equity;

g the expected growth rate.

Since the dividend is the part (the percentage is defined as the payout ratio) of income distributed to shareholders. So you can write the [4] as:

$$P = E * \text{Payout} / (K_e - g) \quad [5]$$

Where:

E = Expected average earnings (Earnings);

Payout ratio = Profit distributed/Total income.

If we consider the reinvestment rate of the "c" profits, the complement to one of the latter represents the payout ratio. The equation [5] becomes:

$$P = E * (1 - c) / (K_e - g) \quad [6];$$

$$P/E = (1 - c) / (K_e - g) \quad [7]$$

Since the growth rate "g" can be determined as a product retention rate or reinvestment rate "c" and return on equity (ROE), (Maccario, Sironi e Zazzara, 2002).

$$g = c * ROE = (1 - \text{payout}) * ROE \quad [8]$$

If the ROE is considered as the rate of return on capital, in the medium and long term it can be compared to the cost of equity "K_e". So we can write $g = c * K_e$ and then the [7] becomes:

$$P/E = (1 - c) / (K_e - c * K_e) = (1 - c) / (1 - c) * K_e \quad [9]$$

we obtain that the cost of equity is equal to the inverse of its P/E.

$$K_e = 1/PE \quad [10]$$

To this end, the values of the leading P/E were provided by Datastream-Thompson Reuters for the years 2012, 2013 and 2014. The data shown in the following table refer to P/E multiples and to the determination of cost of equity using the method in question.

	2012	2013	2014	2012	2013	2014
Banche	P/E	P/E	P/E	Ke	Ke	Ke
BBVA	7.27	9.118	15	13.76%	10.97%	6.67%
Banco Santander	6.924	9.781	14.38	14.44%	10.22%	6.95%
Bank of America	9.375	11.673	12.881	10.67%	8.57%	7.76%
Barclays Bank plc	5.629	7.457	8.881	17.77%	13.41%	11.26%
BNP PARIBAS	4.952	8.747	9.954	20.19%	11.43%	10.05%
CITIGROUP	6.325	9.769	9.529	15.81%	10.24%	10.49%
Commerzbank	4.798	10.695	14.821	20.84%	9.35%	6.75%
Credit Agricole	3.642	6.744	9.268	27.46%	14.83%	10.79%
Credit Suisse Group	6.526	9.617	10.584	15.32%	10.40%	9.45%
Danske Bank	10.054	9.415	11.14	9.95%	10.62%	8.98%
Deutsche Bank	5.567	7.933	8.518	17.96%	12.61%	11.74%
HSBC	8.01	10.265	10.911	12.48%	9.74%	9.17%
ING GROEP	3.709	6.752	9.484	26.96%	14.81%	10.54%
JPMorgan Chase	7.109	9.17	10.19	14.07%	10.91%	9.81%
Lloyds Banking	8.237	11.878	10.475	12.14%	8.42%	9.55%
MACQUARIE	8.988	13.344	14.134	11.13%	7.49%	7.08%
MORGAN STA.	7.521	11.328	12.278	13.30%	8.83%	8.14%
Nomura Bank	10.632	14.128	13.204	9.41%	7.08%	7.57%
Royal Bank of Can.	10.11	10.666	11.911	9.89%	9.38%	8.40%
Royal Bank of Scot.	8.01	12.012	13.366	12.48%	8.33%	7.48%
Societe Generale	4.574	7.825	9.157	21.86%	12.78%	10.92%
Standard Chart.	9.571	9.539	10.391	10.45%	10.48%	9.62%
The Goldman Sachs	7.612	10.799	10.508	13.14%	9.26%	9.52%
UBS AG	8.088	14.699	13.333	12.36%	6.80%	7.50%

Table n.10

6.A COMPARISON OF COST EQUITY THROUGH THE USED METHODS

Three methods have been examined that are based exclusively on market data and through these the different cost of equities have been estimated. At this point we proceeded to a comparison between the three models in the following way:

- o difference between the values obtained through the use of the CAPM and the values resulting from the use of Credit default swaps was calculated.
- o difference between the values obtained through the use of the CAPM and the values resulting from the use of the inverse of the multiple P/E has been calculated.

The results are shown in table n. 11

	2012					2013					2014				
Banks	Ke_CDS [a]	Ke_CAPM[b]	Ke_P/E [c]	b-a	b-c	Ke_CDS [a]	Ke_CAPM[b]	Ke_P/E [c]	b-a	b-c	Ke_CDS [a]	Ke_CAPM[b]	Ke_P/E [c]	b-a	b-c
BBVA	14.07%	16.30%	13.76%	2.23%	2.54%	7.70%	14.65%	10.97%	6.95%	3.68%	4.42%	12.27%	6.67%	7.85%	5.60%
Banco Santander	13.64%	15.69%	14.44%	2.05%	1.25%	8.29%	13.74%	10.22%	5.44%	3.51%	4.42%	11.19%	6.95%	6.78%	4.24%
Bank of America	5.33%	14.39%	10.67%	9.07%	3.73%	4.36%	16.33%	8.57%	11.98%	7.77%	3.76%	12.93%	7.76%	9.16%	5.17%
Barclays Bank	4.74%	16.38%	17.77%	11.64%	-1.39%	4.56%	17.52%	13.41%	12.96%	4.11%	3.90%	12.31%	11.26%	8.41%	1.05%
BNP PARIBAS	5.92%	10.42%	20.19%	4.49%	-9.78%	4.12%	10.78%	11.43%	6.66%	-0.65%	2.82%	10.85%	10.05%	8.03%	0.81%
CITIGROUP	5.04%	17.72%	15.81%	12.68%	1.91%	4.27%	19.77%	10.24%	15.50%	9.53%	3.85%	13.52%	10.49%	9.67%	3.03%
Commerzbank	5.48%	11.81%	20.84%	6.33%	-9.03%	3.95%	12.20%	9.35%	8.25%	2.85%	2.81%	9.90%	6.75%	7.09%	3.16%
Credit Agricole	6.96%	12.62%	27.46%	5.66%	-14.84%	3.49%	13.30%	14.83%	9.80%	-1.53%	2.94%	13.83%	10.79%	10.88%	3.04%
Credit Suisse	3.07%	9.49%	15.32%	6.42%	-5.83%	2.55%	10.40%	10.40%	7.85%	0.00%	1.64%	8.68%	9.45%	7.04%	-0.77%
Danske Bank	3.18%	10.35%	9.95%	7.16%	0.40%	3.17%	12.86%	10.62%	9.69%	2.24%	2.53%	8.65%	8.98%	6.11%	-0.33%
Deutsche Bank	4.09%	9.88%	17.96%	5.79%	-8.08%	3.21%	10.31%	12.61%	7.10%	-2.29%	2.55%	8.78%	11.74%	6.23%	-2.96%
HSBC	3.61%	8.22%	12.48%	4.61%	-4.26%	3.92%	9.85%	9.74%	5.93%	0.11%	3.66%	7.69%	9.17%	4.03%	-1.48%
ING GROEP	5.48%	15.17%	26.96%	9.68%	-11.79%	3.88%	17.96%	14.81%	14.09%	3.15%	2.47%	13.50%	10.54%	11.03%	2.95%
JPMorgan Chase	3.48%	9.86%	14.07%	6.38%	-4.20%	4.02%	11.25%	10.91%	7.23%	0.35%	3.61%	10.22%	9.81%	6.61%	0.40%
Lloyds Banking	5.77%	14.78%	12.14%	9.01%	2.64%	4.54%	16.42%	8.42%	11.88%	8.00%	3.82%	13.33%	9.55%	9.52%	3.79%
MACQUARIE	7.01%	13.47%	11.13%	6.46%	2.34%	5.93%	15.42%	7.49%	9.49%	7.92%	5.08%	11.19%	7.08%	6.11%	4.12%
MORGAN STA.	6.86%	13.95%	13.30%	7.09%	0.65%	4.79%	15.84%	8.83%	11.05%	7.01%	3.97%	12.18%	8.14%	8.21%	4.04%
Nomura Bank	6.50%	9.57%	9.41%	3.07%	0.16%	2.78%	11.84%	7.08%	9.05%	4.76%	2.00%	9.97%	7.57%	7.97%	2.40%
Royal Bank of Can.	3.91%	6.47%	9.89%	2.55%	-3.43%	3.00%	7.35%	9.38%	4.35%	-2.03%	2.79%	6.31%	8.40%	3.52%	-2.09%
Royal Bank of Scot.	5.92%	15.22%	12.48%	9.30%	2.74%	5.11%	16.31%	8.33%	11.19%	7.98%	4.10%	10.48%	7.48%	6.38%	3.00%
Societe Generale	6.98%	14.09%	21.86%	7.12%	-7.77%	4.55%	14.60%	12.78%	10.05%	1.82%	3.12%	15.59%	10.92%	12.47%	4.66%
Standard Chart.	3.77%	8.90%	10.45%	5.12%	-1.55%	4.51%	9.60%	10.48%	5.09%	-0.89%	4.40%	9.15%	9.62%	4.76%	-0.47%
The Goldman Sachs	5.49%	9.75%	13.14%	4.26%	-3.39%	4.66%	11.09%	9.26%	6.43%	1.83%	4.01%	10.72%	9.52%	6.71%	1.21%
UBS AG	3.28%	10.48%	12.36%	7.19%	-1.89%	2.77%	10.66%	6.80%	7.89%	3.86%	1.48%	8.51%	7.50%	7.02%	1.01%
Mean	5.82%	12.29%	15.16%	6.47%	-2.87%	4.34%	13.33%	10.29%	9.00%	3.05%	3.34%	10.91%	9.01%	7.57%	1.90%
Median	5.48%	12.22%	13.53%	6.40%	-1.72%	4.20%	13.08%	10.23%	8.65%	3.00%	3.63%	10.79%	9.31%	7.07%	2.68%
Min.	3.07%	6.47%	9.41%	2.05%	-14.84%	2.55%	7.35%	6.80%	4.35%	-2.29%	1.48%	6.31%	6.67%	3.52%	-2.96%
Max.	14.07%	17.72%	27.46%	12.68%	3.73%	8.29%	19.77%	14.83%	15.50%	9.53%	5.08%	15.59%	11.74%	12.47%	5.60%
Standard Dev.	2.79%	3.06%	5.10%	2.78%	5.16%	1.39%	3.15%	2.19%	2.93%	3.56%	0.94%	2.26%	1.54%	2.15%	2.39%

Table n.11

As can be seen in table n. 19, for each year and for all banks, the estimate of the calculation of the rate of reasonable remuneration was summarized using the three approaches used. It is evident that the difference between the application of CAPM and the approach with the use of CDS shows significant differences, on average of 6.5%, 9% and 7.6% respectively in 2012, 2013 and 2014. Furthermore, the correlation matrix between the three variables is presented (tab.12).

Correl. Prob.	2012			2013			2014		
	Ke_CAPM	Ke_CDS	Ke_P/E	Ke_CAPM	Ke_CDS	Ke_P/E	Ke_CAPM	Ke_CDS	Ke_P/E
Ke_CAPM	1 -----			1 -----			1 -----		
Ke_CDS	0.5501 0.0054***	1 -----		0.3729 0.0726**	1 -----		0.3148 0.1340	1 -----	
Ke_P/E	0.2800 0.1849	0.0960 0.6530	1 -----	0.1493 0.4861	-0.0194 0.9281	1 -----	0.2529 0.2331	-0.1926 0.3671	1 -----

Table n.12

Table n. 12 shows that there is a positive and significant correlation, both in 2012 and in 2013, between the model based on the CAPM and the CDS-based model. While the correlation between the model based on CAPM and the model that uses the inverse of P/E is positive but not significant, on the other hand, it is important to note that the correlation between the CDS model and the model based on the inverse of P/E, in 2013 and 2014, presents a negative but not significant value.

The analysis seems to confirm, as in previous works, that for companies that are "safe" from the point of view of credit risk, the CDS model tends to underestimate the risk (Zanda et al. 2010). Conversely, the comparison between the method based on the CAPM and the use of the inverse of the CAPM showed instead a much smaller difference. In 2013 and 2014 the use of CAPM offers values of 3% and 1.90% higher than the method based on the inverse of P/E. In 2012, however, the situation is reversed because the method based on P/E has a higher yield, on average, of 2.87% and these results are very similar to those found by King in 2009.

The following chart shows the average values of cost of equity based on three models analysed (fig.1).

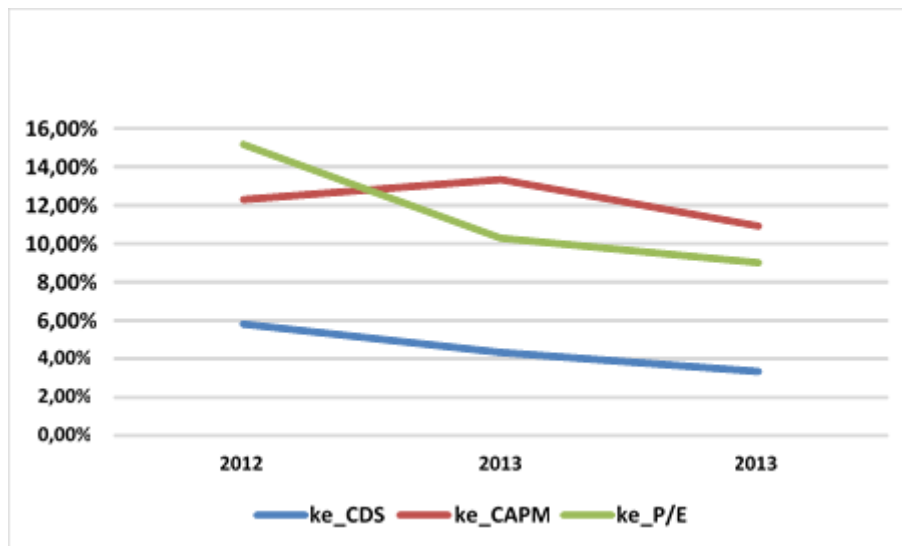


Fig.1 – Comparison trough the models

It is possible to point out that the average trend in the cost of equity based on the three methods chosen is decreasing (except for the CAPM method which in 2013 shows a trend in countertendency). It is important to remember that for the CDS-based method there are two levers: PD and ten-year government bond rates. The average PD of all banks, on average, had a decreasing trend. With regard to government bonds, it should be noted that there has been a double trend: for banks that we could define as Anglo-Saxon matrix (UK, USA, Australia and Canada), risk-free interest rates at 10 years showed a trend in rise, in virtue of the expansionist policies implemented by its Central Banks (Quantitative Easing operations). On the other hand, for banks of European origin there has been an opposite trend, ie a decrease in government bond yields in relation to the sovereign debt crisis of 2012 of the so-called PIGS countries (Portagallo, Italy, Greece and Spain). On average, this effect meant that the trend in 10-year interest rates had a minimal effect on the general trend in rates of discounted remuneration calculated using the CDS method.

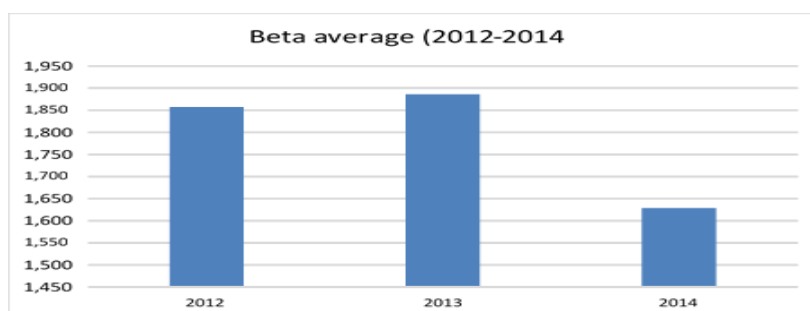


Fig.2 – Beta factor average

In fact, as can be seen from Figure 2, the trend cost of equity of the selected banks, calculated with the CAPM; is basically determined by the beta coefficient since in the analyzed period the trend of the Equity risk premium was less variable as shown in Figure 3.

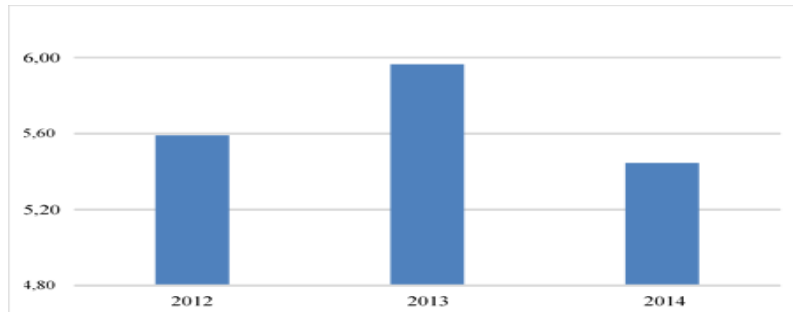


Fig.3 – Equity Risk Premium average

As regards the analysis of 10-year risk-free interest rates, the same applies to the CDS-based method. Finally, as regards the method based on the inverse of P/E, it can be a good point of reference in the event that there may be the presence of strong changes in interest rates without risk, as occurred during the period 2011-2012. Europe.

CONCLUSION

In this study a comparison was made between the Capital Asset Pricing Model, the most widely used methodology, and an actuarial method with the use of Credit default swaps and the method based on the inverse of the multiple P / E. The comparison was made on a sample of 24 banks among the largest for assets in the world belonging to eleven different countries.

The results show that the CAPM estimates a premium for the higher risk than the one obtained with the actuarial method and the method based on the inverse of the P/E (except for 2013). This is because the CAPM determines the economic risk not only as a risk of bankruptcy, but also as a risk of price volatility compared to the market average. The CDS-based method, on the other hand, showed that for companies considered to be not very risky in terms of creditworthiness, the method tends to underestimate the risk since the probability of default is very low. The CAPM remains the most used method, although limits have been highlighted over time, both of a theoretical nature and of an empirical nature. Finally, given the limits shown here by the methodologies described above in certain scenarios, the method based on the inverse of the multiple P/E can be used if not as the main method at least for control.

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EMERGENCE AND EVOLUTION OF AN ENTREPRENEURIAL ECOSYSTEM: THE CASE OF PORTO

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ABSTRACT

Current work on entrepreneurial ecosystems is still underdeveloped, focusing prevalently on successful case studies such as Silicon Valley and less on peripheral areas where entrepreneurship is a nascent but growing phenomenon. In this paper, we examine the emergence and evolution of the entrepreneurial ecosystem of Porto, a city located in the north of Portugal, which has historically been an industrial hub but has witnessed a proliferation of start-ups in recent years. We find that for an entrepreneurial ecosystem to emerge it is of critical importance that one or more players assume the role of entrepreneurial hubs, even if in the initial stage interaction between these actors is limited. However, for an entrepreneurial ecosystem to grow additional factors are necessary including a wide range of experienced investors and a strong level of interaction within the ecosystem. We discuss the implications of our findings for research on entrepreneurial ecosystems and outline a possible avenue for future inquiry.

Keywords: Entrepreneurial ecosystem; start-ups; evolution; cluster; entrepreneurship; Portugal

INTRODUCTION

As several entrepreneurial clusters have emerged or are emerging globally beyond the well-known success story of the Silicon Valley, researchers have progressively used the term entrepreneurial ecosystem (EE) to describe the geographical agglomeration (i.e. co-location) of actors involved in entrepreneurial activity. Examples include cities like Berlin, London, Singapore, and Tel Aviv. Despite its popularity, however, most work on EEs has remained theoretical (Pitelis, 2012; Brown and Mason, 2017) which calls for additional empirical work to explain how EEs emerge and evolve. Additionally, there is little understanding of the reasons behind the success of entrepreneurial ecosystems (Feldman and Braunerhjelm, 2006) perhaps because each ecosystem is unique with its own distinctive idiosyncrasies and characteristics that are spatially, relationally, and socially embedded. Particularly urgent and intriguing, we believe, is the study of contexts that have so far been at the margins for

what concerns entrepreneurial activity and the assessment of the drivers and the obstacles to the formation and evolution of entrepreneurial ecosystems in these contexts.

In this paper, we address this gap through an in-depth analysis of an ecosystem that is not at the core of the global start-up scene, namely Porto's entrepreneurial ecosystem in Portugal. To illustrate the process driving the emergence and evolution of Porto's entrepreneurial ecosystem, we rely on the taxonomy used by Brown and Mason (2017) who classify EEs based on several variables including the presence of dominant actors, the nature of interaction within the ecosystem, the availability of funding, and the nature of entrepreneurial recycling. Through these elements, two types of EEs are identified, namely embryonic and scale-up ecosystems. We provide an overview of Porto's EE dividing our period of analysis in two distinct phases, namely emergence and evolution. Based on interviews conducted with key actors within the local entrepreneurial ecosystem as well as archival material and direct observation, we identify the main actors and factors that acted as triggers for this ecosystem's emergence as well as the obstacles preventing the ecosystem to evolve to a more mature stage. We discuss the implications of our findings for research on entrepreneurial ecosystems in the last section of the paper.

LITERATURE REVIEW

The entrepreneurial ecosystem concept has been often defined using the biological metaphor (Moore, 1993) because the choices of entrepreneurs deciding where to establish their start-up mimic the behavior observed in nature by biologists with respect to biological ecosystems. Starting from this principle, several definitions of EEs have appeared with some scholars noting that we still lack of common understanding of what EEs are and that there has not been enough sufficient rigorous theoretical and empirical analysis (Stam, 2015). Among the various attempts made to define the concept, EEs have been defined as a "set of interconnected entrepreneurial actors, entrepreneurial organizations, institutions and entrepreneurial processes which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment" (Mason and Brown, 2014: 5). Another broader definition of EEs views them as a "set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship" (Stam, 2015: 1765).

In an effort to shed some clarity, recent reviews have stressed out the importance to distinguish between geographical and non-geographical contexts (Mason and Brown, 2017). Scholars studying entrepreneurial ecosystems without focusing on the spatial agglomeration of firms, view ecosystems as facilitators of innovation where actors interact to co-produce new knowledge (Zahra and Nambisan, 2011). Apple's iOS and Google's Android innovation ecosystems are frequently used as

examples of this phenomenon. The majority of studies, however, focus on the geographical dimension of ecosystems to explain why certain locations exhibit higher levels of entrepreneurial activity (e.g. Stam, 2015) and have roots in the cluster approach that focuses on geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (Porter, 1998: 197).

For scholars interested in the geographical dimension of entrepreneurial ecosystems, a fundamental aspect is the physical co-location of firms that share a common vision, exhibit intra- and/or inter-sectoral linkages, and are embedded in a supportive socio-institutional setting (Pitelis, 2012). For entrepreneurial ecosystems to emerge one important pre-condition is the co-location and embeddedness of firms and other actors in a cluster (Nelson, 1993). This implies that the decision to set up a firm usually involves a locational dimension and that the choice of a location will be done after an assessment of its advantages and disadvantages. The international business literature has often discussed how the choice of where to locate a firm is influenced by the potential advantages that may follow (e.g. Dunning, 1980). These advantages include, among others, availability of resources (e.g. financial, human), effective transportation, and a well-developed communication infrastructure. Once a location has been chosen based on the above factors, it is possible to argue that we already have an ecosystem in the making. The selection of the location suggests that other entrepreneurs may decide to establish their start-ups in the same location for the same reasons, but now with the additional advantage of being surrounded by pioneering early-stage firms (Pitelis, 2012). Based on the above, it is possible to conclude that the definition of entrepreneurial ecosystems as “a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory” (Stam and Spiegel, 2016) perhaps best reflects the geographical dimension of entrepreneurial activity of an ecosystem.

EMPIRICAL SETTING

Porto is the second largest and populated city of Portugal, divided into 17 municipalities that are home to more than 1.5 million citizens accounting for 16.5% of the Portuguese population (Pordata, 2016). The city has a major industrial area, extremely relevant for the Portuguese economy, representing a growth value added of €14 million (Pordata, 2016).

The purchasing power per capita of the region is above the Portuguese average being equal to 104.8% (Portugal's purchase power index normalized at 100%) (Pordata, 2015). However, citizens purchase power has been relatively constant for the last 10 years, which coupled with rising housing prices for both renting and buying a house, can have a dilutive effect. Although the cost of living in Porto has been increasing recently, the city remains extremely competitive when compared with other European

cities. For example, Porto has a score of 51.02 on Cost of Living Index Rate by Numbeo, ranking in the 337th position out of 545 cities, which is far from the most expensive cities across the world.

The city of Porto has been attracting the interest of both corporations and young companies due to its skilled labor and a competitive cost of living. Both the amount of companies present in the city as well as their life expectancy have been increasing in the last few years. In total, Porto accounts for 17.1% of the total number of Portuguese companies with 7.091 new companies being constituted, and the number of insolvencies and closures dropping 12.1% and 16.8% respectively, for the same period of time (DB Informa – Barometro, 2018). The ratio of companies' constitutions for each closure is 3.1, meaning that for each company that closes 3.1 new ones are born which is crucial for the growth and sustainability of the entrepreneurial ecosystem (DB Informa – Barometro, 2018).

The reinforcement measures taken in recent years towards the development of entrepreneurial initiatives have been attracting more young entrepreneurs and startups to the city which has been adapting its framework to provide support, guidance, training, and streams of investments to entrepreneurs. Aiming to stimulate and develop its 300 startups, the city relies on 14 co-working spaces, 20 incubators, 5 investment entities, 55 higher education institutions, 68 R&D centers, and 38 business associations which drive Porto towards the goal of becoming an international hub for innovation and a respected startup ecosystem (ScaleUP Porto, 2018). As the city's Mayor, Rui Moreira, explained when illustrating the progress of the city's entrepreneurial ecosystem: "Cities working as living labs are a unique showcase platform to support the link between companies and the city but also companies and the world. The city of Porto is engaged in the development of a strategy to foster the local entrepreneurship ecosystem focusing on the scaleup phase but aiming higher." (Porto start & scale guide, 2016).

RESEARCH DESIGN

In this paper we used an inductive approach through an in-depth and explanatory case study (Yin, 2015). Through this approach, we did not aim to test the external validity of our assumptions but rather aimed to illustrate their usefulness to provide insights into the emergence and evolution of entrepreneurial ecosystems. Several scholars have highlighted the usefulness of case studies to illustrate and discuss theoretical insights (e.g. Bogenrieder and Nooteboom, 2004). To improve the validity of our findings, we relied on a triangulation of interviews, document reviews, direct observation as well as in-depth informal discussions with different stakeholders associated with the ecosystem. We used a semi-structured interview protocol from which we conducted 10 interviews. The protocol was designed to understand the factors that facilitate the emergence of the EE as well as to identify any actors that played a crucial role in the ecosystem's early stages. Moreover, it aimed to

assess what where the major obstacles for the ecosystem to evolve into a more mature phase. This type of interview format gave more control over the discussion and allowed for more description by participants (Lindlof and Taylor, 2002).

CASE STUDY ANALYSIS

The origins of Porto's entrepreneurial ecosystem

In the initial stages of an ecosystem, the creation of the conditions that might lead to its development rest more on individual rather than collective action. Incubators and accelerators, for instance, have been shown to play a pivotal role in fostering entrepreneurship (Bollingtoft and Ulhøi, 2005) with potential positive impacts on the ecosystem in which they are embedded. In our empirical context, a major role was played by a university incubator named UPTEC in the late 2000s. As one entrepreneur revealed to us: "I think UPTEC played a crucial role in centralizing a lot of the startup activity that started to take shape in Porto. They were very connected to the university as they still are today and I think that all the big startups in Porto, in some shape or form, were touched by UPTEC. So, I think that it was really key for Porto's ecosystem to have a place where people would gather and I think that's probably where and how it all started." (*Informant 2, co-Founder*).

While entrepreneurial activity was already taking place in the city before UPTEC, it is noteworthy to highlight that the lack of initiatives that would support early stage ventures prevented several individuals from pursuing the entrepreneurial path. A project manager working for one of the startups incubated at UPTEC noted: "I think we had a lot of people with interesting projects but not the opportunity to develop them. With UPTEC, those opportunities started to appear. For a person with an interesting project and a small budget, the possibility to have a place to work with good infrastructure and support is great. The University of Porto understood that talented people were leaving the city or following less innovative careers just because of lack of support and UPTEC was the way to tie people to the city and give them opportunities. Then, all the different actors came along and the ecosystem started to have much more knowledge transfers which helped with its development" (*Informant 6, Project Manager*).

The incubator, however, was not the only actor playing an important role in shaping Porto's EE. Other spontaneous and often isolated initiatives were also important toward that goal: "Startup Pirates was important to start the mobilization of the ecosystem but also Porto Startup Coffee which started in 2010 and had at least once a month a guest entrepreneur speaker sharing her story with our community [...]. I think this and other projects allowed the spread of knowledge and experience that opened the door for more and better initiatives" (*Informant 4, Adviser*).

The evolution of Porto's entrepreneurial ecosystem

For an ecosystem to evolve and pass from an embryonic to a scale-up stage, several factors have been deemed to be relevant. Among them, the nature of ecosystem interactions is perhaps a key element as ecosystems ultimately thrive and prosper when their actors do not work in isolation. Although some level of interaction is taking place within Porto's entrepreneurial ecosystem, one interviewee noted that compared to other EEs, Porto's ecosystem is still very fragmented. While structural fragmentation creates opportunities for newcomers to enter a specific arena, it is only through cohesion that relationships can be cemented and become stronger.

The evidence collected on Porto's EE suggests that its network configuration is more similar to a star network where one key actor (i.e. UPTEC) acts as a hub maintaining relationships with other players, whether strong as in the case of the Founders Founders initiative – a start-up community initiated by five start-ups formerly incubated at UPTEC – or weaker ties as is the case of some startups that have been incubated in the past but with which interaction is not frequent. Several actors including co-working spaces, universities, and associations have important roles but are loosely connected to other members of the ecosystem. However, more recently another actor has been increasingly assuming an orchestrating role between the different projects and initiatives scattered in the ecosystem. Specifically, Porto's City Hall has been indicated to act as a bridge between the ecosystem's actors through initiatives such as ScaleUp Porto: "It was born two or three years ago I think and started gathering Porto startups under the same "umbrella" for the promotion of innovation and new initiatives. A good example of that is "Boom Week" where players like ANJE, Founders Founders, Porto Design Factory, among others, came together to develop a major event all of them under the same brand and with the same goal of helping Porto entrepreneurs. So, I believe that Porto ecosystem is evolving its forms of cooperation and the City Hall is performing well its function of gathering and mobilize the ecosystem" (*Informant 4, Adviser*). Another more recent phenomenon in Porto's ecosystem has been the creation of co-working spaces which have been indicated as relevant conduits of knowledge and information, especially for early-stage start-ups. As a community manager of one of these co-working spaces put it: "I think co-working spaces only became more visible in the middle of the process, so four or five years ago, but had a big impact because they are places where people who have the same interests gather, exchange ideas, work together and learn from each other" (*Informant 5, Community Manager*).

While Porto's EE emergence was triggered and shaped by the entrepreneurial action of the key actors identified above, its development and evolution is dependent on several other factors that are not necessarily linked to the ecosystem's pioneers. We now turn to an analysis of these factors that so far have acted as constraints to the ecosystem's growth but represent significant opportunities for the

future. The first obstacle identified is the availability of funding, which previous research has shown to be one of the main factors for scaling up an entrepreneurial ecosystem (Brown and Mason, 2017). There was a general consensus about the quantity of funding available with few interviewees lamenting also a lack of experienced investors. One investor we interviewed highlighted this element in particular: “One of the problems that I’m personally involved is the lack of professional investors. There are only a few people with knowledge on international investment landscape, and what happens is that startups want to play in the first league, but they train in the third division, and with lack of mentoring, this will not end well most of the times” (*Informant 1, Investor*). With respect to the scarcity of funds available, it was also highlighted that there is a lack of privately funded sources. An investment manager explained to us the need to reduce the reliance on publicly funded initiatives and increase the amount of private investments coming from Portuguese entrepreneurs who have already sold their previous venture: “If we, for example, see Talkdesk being sold, the entrepreneurs will collect millions, and this can be the start of new private funds reinvesting into the ecosystem and its new startups, with the difference that those entrepreneurs have the experience of building a successful startup. [...] We need more companies that are not dependent on public money and government, and in our case, almost everything is (programs, incubators, etc.)” (*Informant 7, Investor*).

While skilled investors can help a start-up scale faster, it is also noteworthy to highlight that the entrepreneurial team plays a major role in a new venture’s performance. Previous studies have highlighted, for instance, the importance of building diverse and heterogeneous teams, indicating that functional diversity is positively related to a variety of performance measures including growth and employment rates (Hmieleski and Ensley, 2007). Being the majority of start-ups of Porto’s EE technology-oriented, founding and entrepreneurial teams are often well-equipped with respect to software aspects but lack experience and/or competences in other equally critical aspects for venture growth such as sales and product development. As noted by one professional working for a private non-profit association that promotes entrepreneurship within Porto’s ecosystem: “One factor that I would like to refer and that I think is blocking us is the lack of sales expertise. We are really good at creating new technology but we don’t know how to do market or product development” (*Informant 3, Project manager*). Another relevant aspect related to human capital is access to talent in the technological domain. While the city’s largest university offers a sufficient amount of graduates that can be deployed in software development, the establishment in the city of large foreign companies is seen with skepticism as it would increase the so-called war for talent and create a shortage of resources. At the same time, there is a general consensus on the need to attract more talents from abroad to work for local start-ups.

An additional factor preventing Porto's entrepreneurial ecosystem from passing onto a more mature stage is to be identified in the lack of substantial exits which limit the opportunities for learning for other nascent ventures. As one of our interviewees put it:

"Porto's startups ecosystem is still amateur, because the truth is, we don't have many success cases or enough experienced people to share their knowledge. It is not something we can learn at the university, you need to learn from people who made it in the real world and not "by the books" [...]" (*Informant 1, Investor*). The ability to generate the so-called blockbuster exits is thus an important element for an ecosystem to develop as it creates the conditions for entrepreneurial re-cycling (Brown and Mason, 2017). Once exits take place, entrepreneurs can either reinvest in creating new ventures within the ecosystem or invest in other ventures and act as a knowledge repository for to-be entrepreneurs. This process enables a virtuous cycle whereby an ecosystem becomes stronger, generating more entrepreneurs which strengthen the ecosystem (Isenberg, 2011).

Porto's EE is still at an early stage as the amount of success stories –particularly exits – is extremely limited compared to other European ecosystems. An entrepreneur highlighted one of the principal differences between Porto's EE and other European ecosystems by focusing on the lack of success stories: "We don't have a real success story, for example companies that were built here and didn't move. I know that people can say that Farfetch is an example, but I don't think it's a good one, because, although it was built in Porto, they had to move to grow, and that is not a success for Porto, because startups should be able to stay and grow here. Our market is not dynamic enough and that is what we should learn from other major cities in Europe" (*Informant 2, co-Founder*).

Although not included explicitly in the taxonomy proposed by Brown and Mason (2017), our interviews revealed that culture is an important aspect in the passage from one stage to another in the evolution of an entrepreneurial ecosystem. Previous research has identified culture as one of the main domains of an entrepreneurial ecosystem noting that culture includes both societal norms (e.g. tolerance of risk, mistakes, failure) as well as success stories (e.g. visible successes) (Isenberg, 2011). One of our interviewees highlighted an important difference between Porto's EE and other ecosystems abroad: "At mentality level, we still have that idea of not sharing ideas or projects as we fear that someone can steal them. I think that is closing some doors. We can see already some differences in Lisbon, because of the city's internationalization level [...]. I have some contacts with people in Berlin's ecosystem and there's a huge difference in openness. Anyone who has a business idea, quickly shares it with five or six people and within a few weeks, they have something much more consistent and well structured, almost ready to market, something that probably was not happening if no one shared ideas" (*Informant 5, Community Manager*).

DISCUSSION AND CONCLUSION

The increasing focus on entrepreneurial ecosystems can be ascribed to the proliferation of start-ups even in countries that do not have a strong tradition in the generation of successful new ventures. In particular, researchers have tried to go beyond the well-studied phenomenon of the Silicon Valley, and more broadly of the United States, in an effort to understand how other realities can give birth to successful start-ups. To that respect, a particularly understudied phenomenon we believe is the emergence and development of entrepreneurial ecosystems in countries and cities that are traditionally more marginal with respect to entrepreneurial activity. With this goal in mind, this paper focused on the case of second largest city of Portugal, Porto. Using a case study methodology, we explored the drivers and obstacles to the emergence and evolution of this ecosystem which then helped us illustrate the evolutionary process of an entrepreneurial ecosystem.

Our findings point to the pivotal role played by pioneers in the initial phase which then became less relevant as additional players appeared in the ecosystem, creating instead the need for deeper interaction between actors involved in start-up activity. In the second stage, we found that a network orchestrator can be beneficial as self-organizing can be limited by elements such as lack of sufficient resources or individualism. In our setting, for instance, one such role has been assumed by the City Hall through initiatives such as ScaleUp Porto. Additional elements such as the presence of experienced investors and entrepreneurs are of critical importance for scaling up an ecosystem. In our setting, we found that both quality and quantity of investors and seasoned entrepreneurs need further development.

While the findings of our study offer some initial insights on the emergence and evolution of ecosystems in peripheral countries, there is ample room for additional empirical research on the topic. An interesting analysis conducted by Acs *et al.* (2017) identified the number of unicorns (i.e. companies that have reached a \$ 1 billion valuation) per city as a proxy for the health status of an entrepreneurial ecosystem. While it is not surprising to see that the Silicon Valley (which includes San Francisco, Palo Alto and Mountain View) accounts for almost one third of the total number of unicorns in their list, it is interesting to notice that unicorns are also positioned in smaller countries with a much smaller internal market such as Israel and Czech Republic. Thus, a large internal market is neither a necessary nor a sufficient condition for a highly productive ecosystem (Acs *et al.*, 2017) as the examples above demonstrate. Future research should explore these ecosystems and derive generalizable lessons and applicable frameworks that may serve as roadmaps for the entrepreneurial ecosystems wishing to enter this list.

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A LEADERSHIP COMMUNICATION VALUE CHAIN MODEL

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ABSTRACT

This study focuses on the role of communication in the leadership process. The point of departure is Kaiser and Overfield's (2010) leadership value chain (LVC) as this model reflects the link between leaders and organizational effectiveness. Although communication is described as the underpinning foundation of all the leadership domains, it does not feature at any point in the LVC. As the essence of leadership is communication, the goal of this study is to develop a leadership value chain model that incorporates communication. This study unfolded in five phases and included a literature review, an evolutionary conceptual analysis of leadership communication, and a phenomenological research strategy. During the fifth phase of the research, the insights gained from the empirical research were merged with the data from the first two phases to propose a framework and guidelines for integrating communication into a leadership value chain model.

Keywords: Leadership communication, Leadership value chain model (LVC), Leadership communication value chain model (LCVC), Phenomenology, Conceptual analysis, strategic integrated communication

INTRODUCTION

Leadership effectiveness is critical within organizations, with leader communication ranking as top critical driver of organizational results (Madden 2011). It is therefore essential that organizational leadership consist of capable communicators as this can play a significant role in the value creation process of the organization. Unfortunately, discussions on the topic of leadership communication in business literature are rare, which highlights the fact that the field of organizational communication has had limited engagement with the world of leadership (Tourish & Jackson 2008). The point of departure in this study is the leadership value chain (LVC) (Kaiser & Overfield 2010:165) as this model aims to reflect the link between leaders and organizational effectiveness. Although literature describes communication as the underpinning foundation of leadership, it does not feature at any point in the LVC. This study addresses this void and focuses on the role of communication in the leadership process.

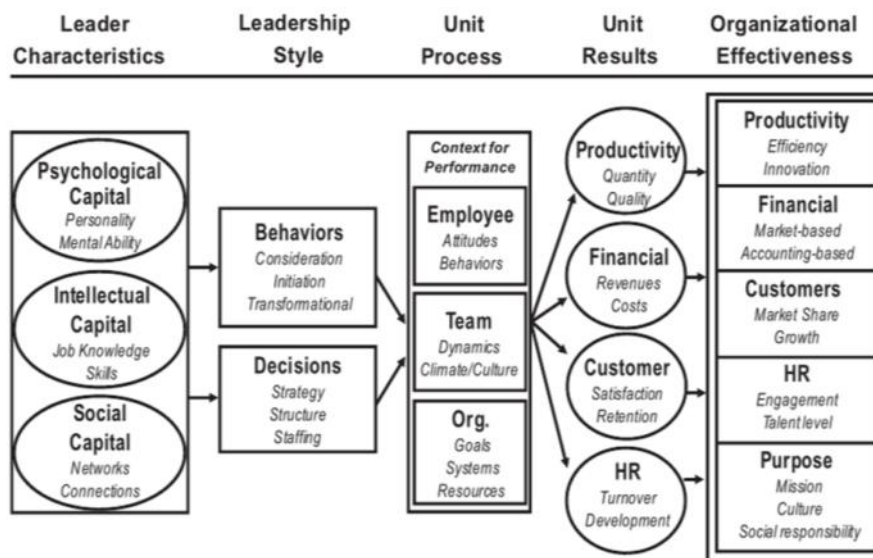
LEADERSHIP IS COMMUNICATION

Communication is key in relationships and coexistence in environments where results are expected. Communication is also critical for accelerating change and improving organizational performance, particularly when it comes to aligning and motivating employees. A company's leadership behavior has a direct impact on the bottom line, and poor leadership communication hits the bottom-line far harder than good leadership communication helps with enhancing it (Ketchum Leadership Communications Monitor 2013). Communication-based leadership research has significantly challenged some of the managerially focused, universalist presumptions of traditional leadership research (Fairhurst 2001). Hall (2007:197) emphasizes leader talk in organizations and its role in constructing collaborative, context-driven meaning for organizational members. Fairhurst and Sarr (1996) constructed the leadership role as creating and managing meaning in the organization that influences the reality experienced in that specific organization. With this, these authors have placed communication at the core of leadership.

In 1998 Anderson predicted that human capital would become a core commodity in complex and competitive landscapes. Today, it is an accepted fact that employees make significant contributions to the overall success of an organization. Research indicates that organizational performance markedly improves when communication is permitted to flow uninterrupted and employees are empowered, provided incentives, and given the necessary resources to perform at optimal level (Ahmed, Shields, White, & Wilbert 2009). Contrary to the view that is usually assumed within the majority of the literature on leadership, that communication is an essential component or aspect of the leadership relationship, a prime leadership skill (Ashman & Lawler 2008), or one of the most important tools in a leader's toolkit (Tourish & Jackson 2008), in this study leadership is equated to communication.

PROBLEM INVESTIGATED

Despite the fact that many well-documented examples of research indicating the correlation between leadership and organizational effectiveness exist, it is still unclear exactly how leaders make a difference to the organisation's bottom-line (Joyce, Nohria & Roberson 2003). In an attempt to establish this, the need for the LVC was identified. Kaiser (2005:3) defines leadership as fundamentally concerning influencing individuals to transcend their selfish short-term interests, and contribute to the long-term performance of the group, therefore building a team and guiding it to outperform its rivals. Communication is essential in both these instances. It was therefore disconcerting to find that the role of communication in the leadership process is not included at any point in the LVC (Figure 1).

Figure 1: The leadership value chain

Source: Kaiser and Overfield (2010:168)

RESEARCH OBJECTIVES

The goal of this study is to develop a leadership communication value chain model. In order to attain this goal the following research questions are relevant:

What does the leadership value chain model entail? (Contextual research question)

Which organizational communication approach would enhance leadership communication? (Contextual research question)

What is leadership communication? (Conceptual research question)

How does employee's perceive leadership communication? (Normative research question)

How should leadership communication be applied to be more effective? (Theoretical research question)

RESEARCH METHOD

This study was approached from a qualitative paradigm and is exploratory, descriptive and contextual in nature as it attempts to explore and describe leadership communication from within a strategic integrated context. The research was divided into five phases: Phase I consisted of two sections, a literature review of the leadership value chain, and a literature review of organizational communication. The rationale of this phase was to explore the context in which leadership communication takes place. Phase II of the research entailed an evolutionary concept analysis (Rodgers 2000) of leadership communication. During Phase III the data gathered during the first two phases was synthesized to develop a LVC model that incorporates communication and is applied

from within a strategic integrated communication perspective. Phase IV comprised a hermeneutic phenomenological study. In-depth interviews were conducted with respondents regularly exposed to leadership communication. Groenewald's (2004:12) phenomenological research questions were put to participants during phase IV to explore experiences, feelings, beliefs and convictions. (These questions are indicated in the results section.) Groenewald's (2004) five step explication process were used in Phase IV. A final step was added in which the results were validated. The unit of analysis was employees exposed to leadership communication. The population of the sampling design was members of the Free State chapter of PRISA (Public Relations Institute of South Africa), who are employees of organizations in the services industry, on the receiving end of communication from leadership. The sample was drawn by means of non-probability and purposive sampling (Welman & Kruger 1999). The inclusion criteria were first of all that the participants were members of the Public Relations Institute of South Africa's (PRISA) Free State chapter, because these individuals work within a communication context which should make them more sensitive to communication related matters. Secondly, only members of the PRISA Free State chapter, employed in organizations in the services industry, exposed to leadership communication from top or middle management, were included. A theoretical sample was drawn based on "saturation of categories" Charmaz (2006:189), i.e. theoretical saturation. The sample size for phase IV was 12 (participants). During Phase V the insights gained from the empirical research (in Phase IV) were merged with the model proposed in phase III to create a leadership communication value chain model.

RESULTS AND FINDINGS

This section is structured around the research questions of the study.

What does the leadership value chain model entail?

The primary use of the LVC (see Figure 1) is to identify factors to consider that influence the way in which individual leaders contribute to organizational effectiveness. Although the LVC is a valuable measuring instrument for determining the impact of leaders on organizational outcomes, there are still certain areas of leadership that need to be addressed. Leadership communication was not included at any point in the LVC. This leads one to construe that the majority of business leaders, and academic scholars alike, fail to understand the important role that communication plays in the leadership process.

Which organizational communication approach would enhance leadership communication?

A review of organizational communication literature highlighted the importance of an integrated approach (Einwiller & Boenigk 2012). Strategic integrated communication (SIC) is needed to enhance the establishment of strong and trusting relationships with stakeholders. An integrated

communication strategy also contributes to consistency of, and strategic intent in messages, which have a positive influence on the organizational reputation and image (Fombrun, Gardberg & Sever 2000). However, for SIC to be successful, it should be an organization-wide endeavor implemented on a strategic level. This requires that leaders grasp the absolute importance of the strategic and systematic management of an organization's communication. The overview of literature provided sufficient reasons to conclude that a strategic integrated approach to organizational communication are beneficial to an organization, as it could potentially impact the bottom-line and add value (Niemann & Grobler 2007).

What is leadership communication?

It was established that leadership today should be approached from a socially constructed and relational point of view (Fairhurst & Grant 2010) where meaning is co-created by the leader and those that he/she is communicating with. Leadership communication was found to be a unique and complex form of communication that directly impact the organizational bottom-line (Fairhurst & Connaughton 2014) and is not easily applied in practice. The very close relationship and inseparable nature of leadership and communication was also established (Tourish & Jackson 2008). From the historical evolution of the concept, it was concluded that, contrary to the past, leadership communication's focus is not merely on the influence of the individual leader, but also on the leader's interaction with the individual, the group and team, and the organization as a whole. This underlines the importance of the human element in organizational communication. It was further found that in order for leadership communication to be effective it should be authentic, ethical and communicative in nature. It is therefore imperative that it should be a transactional and people-centered endeavor that is dialogical and transparent. In other words, a communicative approach to leadership communication, where the establishment of relationships with all stakeholders is of the essence, should be followed. Respect and clear values should be an integral part of this process.

The lack of definitions of leadership communication indicated that this important phenomenon did not receive the attention it deserved. It is important for leaders to take note and be aware of the implications that effective leadership communication can have for the organization. Despite the realization that no one management or leadership approach will be sufficient to meet existing challenges, it was concluded that a fundamental principle agreed on is the need for communication. Effective leadership communication is focused on a constructionist and relational approach where meaning is co-created and where communicative leadership, dialogue, listening and understanding as well as sense-giving is of the essence. The need for leadership communication to be an integrated and strategic endeavor was also emphasized. Only when applied in this manner would the formation of relationships of trust and mutual respect between employees, other stakeholders, and leaders be

possible and would organizational functioning and value addition be improved. Furthermore, when leadership communication is effective it enhances organizational commitment and positively influence the organizational culture and climate.

In this study, leadership communication is defined as a highly complex, socially co-constructed and interactive phenomenon that takes place on different organizational levels between a leader and an individual, group/team, and/or organization (Barrett 2008, 5). It involves strategy, engagement and execution and has as its purpose the controlled transfer of meaning (DeChurch, Hiller, Murase, Doty & Salas 2010). Leadership communication uses the full range of communication skills and resources to overcome interferences and to create and deliver messages that guide, direct, motivate or inspire others to action" (Barrett 2008: 5).

When considering the attributes, antecedents and consequences of leadership communication uncovered in the concept analysis, it was concluded that attention should be paid to these aspects to improve the quality of leadership communication in the organization. This in turn could add value to the organization as it was clear from the findings that effective leadership communication positively influences the organizational bottom line.

How does employee's perceive leadership communication?

Respondents indicated that many problems were experienced with the communication received from leadership in their different organizations. It also became evident that the majority of the leaders that were referred to did not have the necessary communication skills to be proficient communicators. Communication was also not a top priority on their to-do lists. It seemed that the communication received from these leaders affected the morale and job satisfaction of respondents, as well as their performance in the workplace. The conclusions related to each interview question will now be discussed.

<i>How do you experience the leadership communication of your organisation?</i>

The communication received was perceived as problematic and basic communication principles were found absent. A general *lack of communication* existed and an *absence of communication* was also detected. Communication was mostly *one-way* and *no provision was made for feedback* from respondents. *Top-down communication* seemed to be the norm. Communication received was also of *poor quality* and often *insufficient and unclear*. A *lack of interpersonal communication skills* compounded the problem, as leaders exhibited *insensitivity to non-verbal cues* and *were also unable to establish meaningful relationships with employees*. Furthermore, communication was perceived as *unsupportive, condescending, cold, detached* and *strained*. Respondents did not always receive information necessary for the proper execution of their jobs, and indicated a total *disregard for communication* from some leaders.

Responses included statements such as:

**...but the communication does not come from management. We as communication practitioners are there to help leaders to communicate, not to communicate on their behalf, but we communicate on their behalf.*

**In our department the communication is exceptionally pathetic. No communication takes place.*

**They hardly ever share information and when things change you are not aware of it. You function by trial and error.*

A silo approach to communication was reported by some respondents, with *interdepartmental communication* described to be *inadequate*. This resulted in little integration of work activities which was very *demotivating* to respondents as certain tasks had to be repeated. This had a serious *effect on the work teams* as an absence of team spirit was reported.

A very important point that surfaced was the fact that communication was experienced as *unethical, disrespectful* and *dishonest*. This has serious implications for the establishment of relationships of trust between leaders and their followers. Where trust is absent communication cannot be successful as leaders will be perceived as inaccessible, and employees will not have the confidence to approach them about important organisational issues.

Finally, an overall *lack of or under-utilisation of communication structures* had an impact on the communication. Without a proper communication structure and integration of messages, there will be *no message consistency* to internal and external stakeholders alike. Different departments did not know what was expected of them, and messages to external stakeholders were also not effective. It was concluded that organisational structures did not always provide the necessary support. The lack of communication structures also led to respondents not knowing where to report and what channels to follow when communicating.

<i>How does your leader's communication make you feel?</i>
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Interaction between leaders and the respondents was *found lacking* and *hardly any positive relationships existed*. It seemed as if the leadership communication employed had a very *negative impact on the respondents' wellness*. The feelings reported by the respondents led to the conclusion that the quality of the leadership communication influenced employees negatively and that frustration, distrust and unhappiness prevailed. The way in which some leaders communicated caused respondents to feel inferior and powerless, which in turn led to disheartenment and respondents feeling demoralised. Respondents also indicated that they *regularly felt stressed* and unsafe in the workplace, which affected their functioning. It can be concluded that this led respondents to feel *emotionally abused, not good enough* and *disrespected*, as well as unhappy in their work environment. This had an impact on the respondents' job satisfaction. Examples of responses included:

**It has an influence on your attitude towards your work. It makes you negative. You don't want to support work initiatives.*

**It makes me feel as if the road is not level. There are obstacles in the way.*

**I feel rebellious.*

How should an effective leader communicate?

In this section, four themes emerged from the data. Firstly, it was found that leadership communication should be *communicative* whereby communication is the central aspect of leadership and constitutive of leadership. It was stated that leaders should pay attention to important aspects such as dialogue, effective listening and understanding when communicating with subordinates. The importance of supplying feedback on communication received from employees, as well as receiving feedback with an open mind and without a preconceived agenda, was stressed. Furthermore, the respondents expected communication to be an *inclusive process* that is *meaning-centred* and *interactional*, and where *interpersonal exchanges* between the different parties are of the essence. The necessity of *frequent* and *adequate* communication was also indicated.

The second theme emphasised the importance of taking a *relational approach* to communication. The importance of *interpersonal communication skills*, being able to communicate in a professional manner, as well as being diplomatic and tactful, was indicated. *Emotional intelligence* was seen as one of the prerequisites for being an effective communicator, as this would allow the leader to *show insight and understanding* when communicating, and enables the leader to *adapt the communication to a specific context*, and be *audience and recipient sensitive*.

Thirdly the importance of *authentic and ethical communication* were viewed as very important as this allows for *transparent, honest and unambiguous communication* that would lead to the establishment of *trusting relationships*.

A final theme highlighted was the need for communication to be used *strategically*. The need for a *communication structure* and the inclusion of communication in the overall organisational strategy, as well as the need for a *communication strategy*, were mentioned repeatedly. It was also suggested that communication should be *integrated* into all the organisational functions to encourage the establishment of a culture of collaboration to enhance teamwork and team spirit, and counter silo functioning.

What is the contribution that effective leadership communication can make to an organisation?

The responses to this question were categorised into two sections. The first section pertained to the *impact* of the leadership communication *on the organisation*, and the second section pertained to the influence that effective leadership communication could have *on the individual*. These findings are presented in table 1 below.

Table 1: Synopsis of consequences derived from conceptual analysis and employee responses

Impact of more effective leadership communication on the organisation:	Impact of more effective leadership communication on the individual:
- Higher productivity and efficiency	- Positive employee identification
- Improved organisational effectiveness	- Group and task cohesion
- Establishing an environment of trust and respect	- Improved leader-member relationships
- Enhancing a positive organisational culture and climate	- Employee and job satisfaction
- Positive impact on organisational reputation	- Innovativeness amongst employees
- Provides direction to employees	- Freedom of expression by employees
- Increase turnover of organisation	- Collaboration amongst employees
- Better informed workforce	- Organisational commitment
	- Improved susceptibility to change
	- Empowered employees
	- Enhanced emotional well-being
	- Motivated employees
	- Improved employee wellness
	- Improved efficiency
	- Improved service delivery
	- Foster loyalty towards organisation
	- Improved morale amongst employees
	- Sense-giving

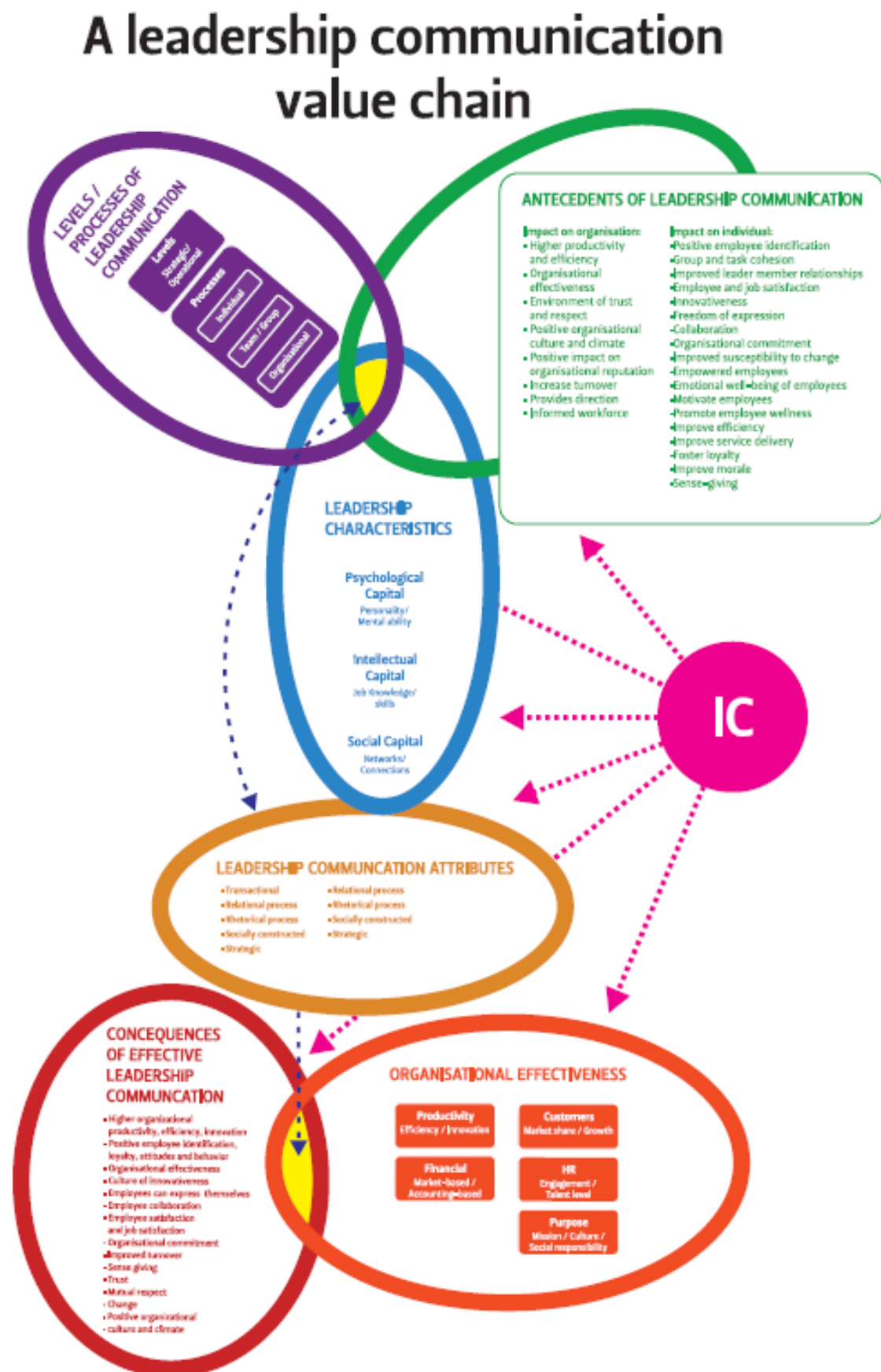
Aspects that were not established during the concept analysis, but surfaced in the data, were added to the conclusions made. In connection with the influence of effective leadership communication on the organisation it was added that effective communication from leaders *provided employees with direction*, and assisted in having a more *informed workforce*. All of the abovementioned aspects ultimately contribute to the emotional well-being of employees.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Research by KETCHUM done since 2013 up to 2016 has shown that CEOs and organizational top management constantly rate communication as one of the top three skills that a leader should possess. It is therefore clear that there is a greater awareness of the importance of leadership communication. Unfortunately, it is still not receiving the attention that it warrants. The omission of communication in a measuring instrument such as the LVC is proof thereof. Leaders should use all available resources to add value to their organizations to survive in the harsh and evolving conditions. The LVC was developed with the intention of assisting leaders in this daunting task. In the ensuing section the LCVC model (see figure 2) is presented in reaction to the final research question, namely:

How should leadership communication be applied to be more effective?

Figure 2: A leadership communication value chain model



The significance of having an IC strategy in place has never been as important as in the current organizational environment where survival has become a constant struggle. An IC approach to communication enhances strategic consistency, and is focused on portraying a unified and consistent message to all organizational stakeholders. The value of IC lies in the competitive advantage that it can assist the organization to obtain (Niemann & Grobler 2007). As IC is an organization wide endeavor, it is important that leaders have a thorough understanding of the concept of IC, and what it entails as this will enable them to underwrite and support the strategic implementation thereof. As stated above, an IC approach can assist in adding value to the organizational bottom-line by providing a competitive advantage. It is therefore suggested that leadership communication should be applied within an SIC context. A leadership communication value chain model is suggested to enhance the effectiveness of a leader's communication (Figure 2). Each of the different domains are depicted in the circles of the model.

Domain 1: Leadership characteristics

A leader's characteristics are the distinguishing features that make him/her unique and that influences how he/she leads. Kaiser and Overfield (2010) divided the leader characteristics into three types of capital, namely psychological, intellectual and social capital. The first domain of the proposed model refers to these three variables. Communication can and does play an important role in all three types of capital. Interpersonal communication skills, as well as communication competence, are essential aspects required to enhance leadership characteristics.

Domain 2: Leadership communication attributes

As with the first domain, this second domain is specifically focused on the leader as individual. The attributes of leadership communication, as were discovered through the concept analysis, supply the characteristics of the phenomenon. In order for a leader to communicate effectively in any context, a number of guidelines are presented to improve leadership communication. These entail that leadership communication should be:

- Communicative, where communication is deemed central to leadership, defines leadership and is constitutive of leadership
- Meaning-centred, in order to frame the situation and provide employees with a "map" or direction for action
- Dialogical, to establish relationships through high quality contact between leaders and followers that are open, creative and meaningful, and can lead to ethical organisational learning and change

- Discursive, to allow for the co-construction of meaning through talk and through social interaction processes that allows leaders and followers to work together in meaningful ways to reach desired outcomes
- Dyadic, to ensure the formation of unique one-on-one relationships between a leader and each of his followers through interpersonal exchanges
- Interactional, as this assists in structuring organizational reality and influence leadership perceptions among employees
- Interpersonal, to establish relationships and to enable parties to converse and negotiate definitions for their relationships as they share the roles of sender and receiver and become connected through mutual meaning creation
- Transactional, to ensure an ongoing and changing process in which sender and receiver roles are interchangeable and senders and receivers are able to influence each other's interaction
- Relational, as leadership is co-constructed in a social interaction process and is neither leader, nor follower-centric
- Rhetorical, where humans as symbol-using creatures, use language to make sense of reality, while providing techniques to build connections with other human beings
- Socially constructed, as meaning is created through dialogue among groups of people in a particular context
- Strategic, to ensure the shaping of meaning, building of trust, creation of reputation, and management of symbolic relationships with internal and external stakeholders through the communication of strategic decisions and the creation and communication of a vision of the future;
- Sense-making, as a process that is discursive and can assist in generating a point of reference against which a feeling of organization and direction can emerge
- Communication competence, as leadership is enacted through communication, and only when the necessary knowledge and skills are present can this process be executed successfully
- Authentic, being open, accurate and transparent
- Proficient providing continuous, frequent, and timely messages

Domain 3: Antecedents of leadership communication

Concept antecedents are events, conditions, or precursors that are evident prior to the occurrence of a concept, in other words antecedents are the aspects that need to be in place in order for leadership communication to be successful and add value to the organisation. Domain three focuses on the organisational context and conditions required for leadership communication to be more successful.

Based on the antecedents of leadership communication, guidelines to enhance such a context entail the creation of:

- A culture of ethical and caring behaviour where others are treated with dignity and respect preside.
- An environment that supports respectful engagement where interaction conveys a sense of value and worth to those being communicated with.
- Enabling conditions where processes, structure, social interaction and organizational wide relationships are of the essence.
- Alignment between the goals of the individual and the higher level objectives of the organisation
- Sustainable engagement that receives continuous attention
- An awareness of the context and sensitivity to the context in which leadership communication is taking place
- The most relevant leadership communication style
- A cultural sensitivity where cultural barriers and differences receive attention
- Network relationships which are important as leaders are positioned in networks in different ways
- A nurturing organisational culture where employees feel safe and protected.
- Sensitivity towards the importance of emotional intelligence being part of the leader's make-up.

Domain 4: Levels and Processes of leadership communication

The purpose of this domain is to highlight the importance of recognising the different levels and processes in which leadership communication take shape. Leadership communication is performed at the strategic and operational levels of an organization. The strategic level generally refers to *what* should be done and is concerned with the integration of interactions in an organisation. The operational level is focused on *how this should be done*, and underlines the characteristics necessary for individuals to work together in a cohesive and meaningful way. The processes relevant to leadership communication are socially constructed and bound by systems characteristics. The complex systems perspective is incorporated in this domain and involves individual, team/group, and organizational processes. This domain reflects the complex and multi-dimensional nature of leadership communication.

Domain 5: Consequences of effective leadership communication

Domain 5 provides an overview of the probable consequences of effective leadership communication. The impending results of effective leadership communication (on the individual as well as organizational level) are indicated in the proposed model.

Domain 6: Organisational effectiveness

The ultimate aim of this study was to incorporate communication into the leadership value chain model to enhance organizational effectiveness and add value to the organizational bottom-line. Most research on how strategic leaders affect organizational performance is based on a financial perspective rather than value creation in multiple spheres. Focusing on the Triple Bottom Line (TBL) has become essential for business success. The final domain reflects five organizational spheres where the impact of effective leadership communication becomes visible and can be experienced. The five spheres include productivity, financial, customers, human resources and purpose. These spheres are aligned with the elements of the TBL as the financial sphere in the model represents the financial aspect of the TBL which signifies profit; the stakeholder sphere is embodied by the people aspect; and the purpose sphere denotes the planet component. Domains 5 and 6 focus on the consequences of effective leadership communication and the way in which it can enhance organizational effectiveness.

CONCLUSIONS

All of a leader's actions communicate meaning to subordinates, indicating the symbiotic relationship between communication and leadership. This paper adds to the body of knowledge defining the concept, and clarify the important elements of leadership communication. The proposed model serves as framework to enhance or add value to organizational effectiveness. Further research that focus on the practical application of this model as training and/or measuring instrument is suggested.

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MENTORING, BUSINESS CASE COMPETITOR DEVELOPMENT AND REVERSE MENTORING AT GLOBAL BUSINESS CASE STUDY COMPETITIONS

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ABSTRACT

Even though management education has a long tradition, it has received an immense amount of attention from both scholars and practitioners in the last few decades. Most research efforts have aimed at improving classroom education processes, programs and outcomes. Only a limited amount of research has focused on extracurricular activities such as mentoring top talented students for international business case competitions. This paper aims to examine the knowledge flow between mentors and strategic management undergraduates while they prepare for international business case competitions. This flow provides the opportunity for the development of phronetic skills, knowledge and leadership potential of undergraduates. To understand the flow, 55 mentors worldwide were examined to provide evidence of their mentoring practices, perceived development of undergraduates and reverse learning of the business schools' top talents. Our results indicate that extracurricular mentoring of business case competitors strongly affects their development and creates recursive effects on the development of mentoring activities.

Keywords: mentoring; reverse mentoring; competition; case method (teaching technique); college students

INTRODUCTION

'Homines dum docent discunt' – Latin for: 'People learn while they teach'

-Seneca (Epistulae morales ad Lucilium, Letter 7, section 8)

Strategic management and leadership education has been a focal point of recent scholarly and practical research (Wright, Paroutis and Blettner 2013; Bower 2008; Doh 2003). Recently important questions have been raised on the effectiveness of strategic management educational processes (Starkey, Hatchuel and Tempest 2004; Mintzberg and Gosling 2002), needs for more practically applicable strategic tools and techniques (Greiner, Bhambri and Cummings 2003; Ghoshal 2005), and further use of these tools and concepts in the workplace (Jarzabkowski, Gulletti, Oliveira and Amoo

2013). The example from Singapore showed that an innovative way of teaching to students can affect the development of regional innovative systems in higher education institutions (Lombardi et al. 2017).

Even though case study analysis method has not always been constantly growing over the last century (Bridgman, Cummings and McLaughlin 2016), it still seems to be the most advocated approach in strategic management education (Garvin 2003; Raelin 2009). Academics posit that case studies provide authentic, active and pragmatic applications of theory to school practices (Sudzina 1997). The focus of this study is on the specific use of case method in undergraduate business case competitions. The rationale for analyzing the case study method in this niche context is the promotion of awareness and use of evidence-based management concepts (Gamble and Jelley 2014).

Corner et al. (2006) finds that grounded learning in strategy can be achieved by incorporating business case competitions into the classroom. It is further noted that case competitions play an important role in the future development of managerial skills (Sachau and Naas 2010). Although business schools frequently use business case competitions, only a sparse amount of scholarly and practical research has put an emphasis to this phenomenon.

We aim to fill the gap in the present body of knowledge by examining the process of knowledge transfer from mentors to undergraduates and reverse knowledge flows after undergraduates 'close the academic-practice gap' (Rynes, Bartunek and Draft 2001: 348) at business case competitions.

-Despite the importance of these topics, to the best of our knowledge, a study has never been conducted in this space. For the construct of our model we were inspired by the multistage mentoring process theory (Humbert and Ros 2016), the importance of reverse mentoring as a way of social exchange between generations (Marcinkus Murphy 2012), and the importance of teacher leadership identity development (Sinha and Hanuscin 2017).

In the succeeding sections we build a case for premier global business case competition as a context for our study. We then develop a theoretical background, review works related to mentoring, case contesters' development, and reverse mentoring. Afterwards, we thoroughly elaborate on methodology and present study results. Finally, the discussion will explore the context of our main findings, present theoretical and practical contributions, implications, strengths and limitations of the study. We offer several areas for follow-up research studies.

STUDY CONTEXT

Prior to elaborating on a theoretical model, we will set the context by highlighting the benefits of premier global case competitions. Presently, many business schools use business case competitions for strategic management education as well as other business specific disciplines. Case competitions

originated in the United States and participation was restricted to national schools, but the phenomenon has diverged around the globe in last two decades (Hadler 2011).

As an evolving concept, there is limited evidence on which business case competitions can be truly classified as 'premier' contender. The most comprehensive list of premier global business case competitions currently available, was compiled by the Auckland University (see Appendix 1). The real world cases at these competitions highlight strategic challenges faced by global business leaders. The ranking provided by the Auckland Universities is based on a survey among mentors from competing schools worldwide. Statistics show the number of annually organized premier international case competitions has increased from 13 in 2011 to 22 in 2016.⁶

Although the case format may play an important role in business case competitions (Menna 2010), it only differs slightly between the premier global competitions. Each team is provided with a real-business case(s), which they have not seen before and are sequestered in a room to prepare for a limited timeframe. Each business school selects a team of four students from diverse backgrounds specializing in the fields of marketing, finance, accounting, economics, information technology, engineering or international business (Damnjanovic, Proud and Ruangwanit 2016). The tasks they need to solve are strategy-based, which makes them complex and unstructured by nature (Umble, Umble and Artz 2008). Business case competitions require a deeper level of experiential and integrative exercises for students (Navarro 2008). Each team needs to present their case solutions to a jury panel judged by outside company executives (usually top management or consultants). Participants in all of the varying formats exercise skills and knowledge on a real-world case from an actual organization, with support of corporate representatives who can provide some facts and insights and occasionally limited professional advice.

A jury panel evaluates the solutions presented by competitors as well as a specific question and answer component. The jury evaluation rubrics usually cover the content, presentation skills and the question and answer part.

The undergraduate student teams are mentored prior, during and after the competition. Mentoring is not limited to faculty academics but may include other university staff, graduate students (alumni), peers or management consultants (Zalaquett and Lopez 2006). Mentors are academic or business 'veterans' highly prepared for educative roles at competitions (Stanulis, Little and Wibbens 2012). Mentoring case competitors is a challenging task which encompasses high commitment regarding the selection of team, and development of leadership and technical skills within the team (Dlacic, Damnjanovic and Ribaric 2017)

⁶ <http://www.champions-trophy.co.nz/international-results/>

THEORETICAL BACKGROUND

Mentoring Business Case Competitors

Mentoring has received immense attention from scholars ever since Kram formally introduced the concept into the literature (Kram 1985). Scholars still struggle to find consensus on the definition, main attributes and outcomes of mentoring (Crisp and Cruz 2009). Roberts (2000: 162) generally defines mentoring as “a formalized process whereby a more knowledgeable and experienced person [mentor] actuates a supportive role of overseeing and encouraging reflection and learning within a less experienced and knowledgeable person [protégé or mentee], so as to facilitate that person’s career and personal development”. From an educational point of view, Murray (2001) stresses the purpose of learning and developing more phronetic skills and practice-based competences of a protégé.

Based on our experiences from mentoring business case testers, case competitions are centered on educating undergraduates and developing their integrated strategic approach to solving real-world problems. The logic and the structure of case competitions provide a myriad of learning benefits for students. As advocated by Corner et al. (2006) they include creating a real-world experience, optimizing learning transfer, integrating theory and practice, and shifting learning responsibility to the students. Additional values of global competitions include: familiarizing participants with multi-cultural environments (Köhler et al. 2013), memorable experiences, peer bonding, social capital development, and exposure to job opportunities (Gamble and Jelley 2014).

Nonetheless, joining the premier league of global business case competitions requires high outcomes and the ‘competition part’ in business case competitions certainly plays an important role. In order to achieve high scores and rankings, business school teams [mentors and competitors] need to gain and maintain their strategic educational competitive advantages. Winning at global case competitions requires the creation of dynamic capabilities – connecting multidisciplinary knowledge and specific, and difficult to imitate skills created within business schools.

Styles and Outcomes of Mentoring Business Case Competitors

Mentoring has been examined from the different developmental stages of a protégé. Eby et al. (2008) explains the difference in youth, academic, and workplace mentoring. From this point of view, business case competitors are a transitional cohort, sliding from study to the career-entering phase. On one side, the style and operating mode of mentoring business case testers is academic by nature (Van Dyne 1996; Ortiz-Walters and Gilson 2005). On the other side, at the transitional phase from the early adulthood to workplace entrance, a protégé is focused on building a stable professional identity (Levinson et al. 1978). Accordingly, the aim of business case mentoring shows great similarity to workplace mentoring, as it aims to enhance personal and career development (Kram 1985), rather than psychosocial support (Waldeck et al. 1997). Huwe and Johnson (2003) report that students who

establish strong mentoring relationships with their academic advisors and experience enhanced personal and professional development.

The scholarly voices are unequivocal about the possible outcomes of the mentoring process. Mentoring has been viewed as a mechanism for knowledge transfer (Fleig-Palmer and Schoorman 2011). Cunningham (1995) indicates that mentoring programs at business schools are aimed at professional preparation of students. Therefore, the minimum mentoring outcomes are centered on the advancement of protégés phronetic (industry and labor market-based) knowledge and skills. Accordingly, we hypothesize that:

H1: Case competition mentoring improves mentees' knowledge of theory and practice of management

An important prerequisite for good mentoring practices is the excellence in mentor-mentee communication, particularly at global case competitions. Mentors need to encourage appropriate communication present material in a format appropriate to the role, the task, skills with other team members, and the audience and interpersonal skills - working with others. Exploring the effects of case-based learning on communication skills and learning motivation in mentoring at case competition we should underline that case-based approaches cultivate analytical thinking, increase understanding of core managerial principals, and enhance communication skills and self-motivation for both students and mentors. Reflections from past participants (students) suggest that the competition is a more memorable university experience than are obligatory prerequisites for career qualifications. (Ali, Grund and Koplan 2011). Case study competitions improve teamwork, critical thinking and communication skills, which are the skills that employers want from their new employees (Burke, Carter and Hughey 2013). Mentors participation in case study competitions can enhance their communication skills, making students more suited to negotiate an increasingly competitive work environment and job opportunity. The concept of "leadership communication," an approach to business communication is create to help senior managers be better leaders in the organizational context (Barett 2006). Therefore, we hypothesize that:

H2: Good case study mentoring improves mentees' communication skills

Nevertheless, these are not the only outcomes that mentoring provides to business students. Even early studies in mentoring report on psychosocial benefits, such as leadership development. Dziczkowski (2013) states that "many of the world's finest and most successful leaders have trusted mentors". Also, Lester et al. (2011) conducted an investigation in the United States Military Academy and reported positive mentoring impact on leadership efficacy development. This study provided a good analogical context for our study. As the roots of strategic management are in a military strategy, military education could be helpful in strategic management education as well. Following the aforementioned, we hypothesize that:

H3: Good case study mentoring improves mentees' leadership potential.

According to research from Qatar (Al-Sada, Al-Esmael and Faisal, 2017) better understanding of organizational culture and leadership styles influence on better satisfaction, commitment and motivation.

Developmental Relationships and Reverse Mentoring

In the last decade, mentoring scholars and professionals have been focused on a specific inverted type of mentoring – learning from current or former protégés. This type of mentoring is called 'reverse mentoring' as it reverses traditional roles in mentoring (Cotugna and Vickery 1998). The emphasis in reverse mentoring alters from the unilateral transfer of knowledge from the expert to the less experienced to the reciprocal intergenerational learning (Tempest 2003). Reverse mentoring may exhibit some overlaps with traditional mentoring. However, it has some distinct features including the unequal status, knowledge sharing styles, emphasis on professional and leadership skills and commitment to the shared goal of support and mutual learning (Marcinkus Murphy 2012).

Humbert and Rose (2016) theorized that reverse mentoring is the final phase of the initiation-cultivation-separation-redefinition mentoring process. The main features of this phase are reciprocal information sharing, personal and professional feedback, confirmation and emotional support (Kram 1985). Naturally, only some, but not all mentoring relationships will eventuate to a peer-based relationship (Kram 1983). Kennecke, Hauser and Weisweiler (2016) find transformational leadership to have an important mediating effect on reverse mentoring.

Once new knowledge is created among business case competitors it is likely to outflow vertically, similar to the knowledge flows in organizational subunits (Schulz 2001). Reverse mentoring is a forward-thinking organizational tool for cross-generational learning (Harrison 2017). From a theoretical perspective, at this phase a specific form of social exchange of knowledge emerges. Mentoring may explain how knowledge is transferred in the organization, but it takes reverse mentoring to explain how the organization [business school] learns (Lankau and Scandura 2002).

Reverse mentoring elevates the knowledge by leveraging the expertise of both mentors and protégés (Chaudhuri and Ghosh 2012) and inspires the knowledge circulation between the generations (Gerpott et al. 2016). Until now, only a few research studies have tackled the relationship between reverse mentoring and mentoring activities. For instance, Chen (2013: 205) finds reverse mentoring to have positive effects on mentoring and learning outcomes.

Based on the previous literature body and our own set of assumptions we have verbalised additional set of hypotheses that are scrutinised in this study:

H4: Good case study mentoring results in good reverse mentoring.

H₅: The higher the level of mentees' knowledge of management theory and practice the stronger the reverse mentoring they provide.

H₆: The higher the level of mentees' communication skills the stronger the reverse mentoring they provide.

H₇: The higher the leadership potential of the mentees, the better reverse mentoring they provide.

METHODOLOGY

Research Instrument

We based our study on primary data and employed a questionnaire as a research tool. The questionnaire had five sections: demographics of examinees, mentoring activities, leadership potentials and development, knowledge and skills development, and reverse mentoring activities. To ensure the construct validity relevant constructs from other studies were adapted. Some items were slightly modified to best fit the context of strategic management education of business case competitors. All the items were measured on a Likert-type scale (responds were coded from 1 – strongly disagree, to 7 – strongly agree).

Mentoring activities encompassed seven inquires based principles for good practice in undergraduate education developed by Chickering and Gamson (1987). These principles entail: encouraging contact between students and faculty, developing reciprocity and cooperation among students, encouraging active learning, giving prompt feedback, emphasizing time on task, communicating high expectations, and respecting diverse talents and ways of learning.

Leadership potential and development was developed following Higgs and Aitken (2003) and Greenhalgh (2007). The main dimensions of students' leadership development were: strategic leadership, leading capability building, leading political/stakeholder interface, leading change, intellectual leadership, leading culture awareness, building relationships and reputation, and building personal learning.

Knowledge and skills development was developed as a combination of two constructs. The knowledge development measures originated from the learning objectives of the case study assessment given in Jerrard (2005: 31). The skills development part follows the study of Melling and Gurjee (2013). A 13-item list is given in Appendix 2.

Reverse mentoring items were reworded from the Marcinkus Murphy (2012) study. These items include: knowledge sharing, coaching, exposure and visibility, skill development, challenging ideas, networking, support and feedback, acceptance and confirmation, friendship, and affirmative encouragement.

The questionnaire was pretested by 8 faculty members to ensure question readability. Accordingly, we slightly modified and refined the questions resulting in the final questionnaire used for data collection.

Data Collection and Sampling Procedure

The question was distributed to mentors in an e-form via email. As the total population of case competition mentors is unknown (to the best of our knowledge there is no global database of case competitors' mentors), we based the study on a "snowball" sampling technique (Biernacki and Waldorf 1981). This sampling relies on peer-to-peer recruitment of study participants and formation of a referral chain (Bodin et al. 2016). Although it can be a subject of various biases (see Avrachenkov, Neglia and Tuholukova 2016), the referral chain was actively controlled – particularly its initiation, progress and termination. Using the coded questionnaires, the number of referrals was controlled to limit the clustering within countries. The final distribution of answers per country is displayed in Table 1.

Table 1 Distribution of examinees per global regions and countries

Region	Frequency	Percent	Countries
Asia-Pacific	12	22%	Singapore, Thailand (4), Hong Kong (3), Japan (1)
Australia & Oceania	8	15%	Australia (5), New Zealand (3)
Europe & Middle East	18	33%	Serbia (6), Denmark (3), Norway (2), The Netherlands, Spain, Portugal, Switzerland, Ireland, Hungary, Lebanon (1)
North America	17	31%	Canada (9), USA (8)
Total	55	100%	

The main field of expertise of examined case competitor mentors, was Management and Strategy (30.9%), followed by Finance and Accounting (21.8%), and Marketing and Communication (18.2%). Mentors had on average 7 years of experience in coaching case competitors (SD=5.85).

RESULTS

Overall Model

The model was constructed and analysed using the SmartPLS 3 (Ringle, Wende and Becker, 2015) that supports partial least structural equation modelling (PLS-SEM). Partial Least Squares approach has already been widely used in strategic management (Hulland, 1999) and knowledge transfer literature (Ko, Kirsch and King 2005). "The PLS-SEM algorithm estimates the path coefficients and other model parameters in a way that maximises the explained variance of the dependent constructs" (Hair et al. 2017: 82). PLS-SEM is particularly useful: (a) when working with extremely small samples such as one

in this study ($n=55$); (b) when model includes formative constructs, and (c) when the main purpose is exploration. Our sample size of 55 observations is sufficient under the 10 times rule. Given that the maximum number of arrows pointing at a single dependent construct in this study is four, we need at least 40 observations to achieve a successful path model estimation. This requirement was successfully met. The idea of the model shown in Figure 1 is to identify and explore a number factors that have a potential to explain substantial portion of variance of reverse mentoring as a focal phenomenon of interest.

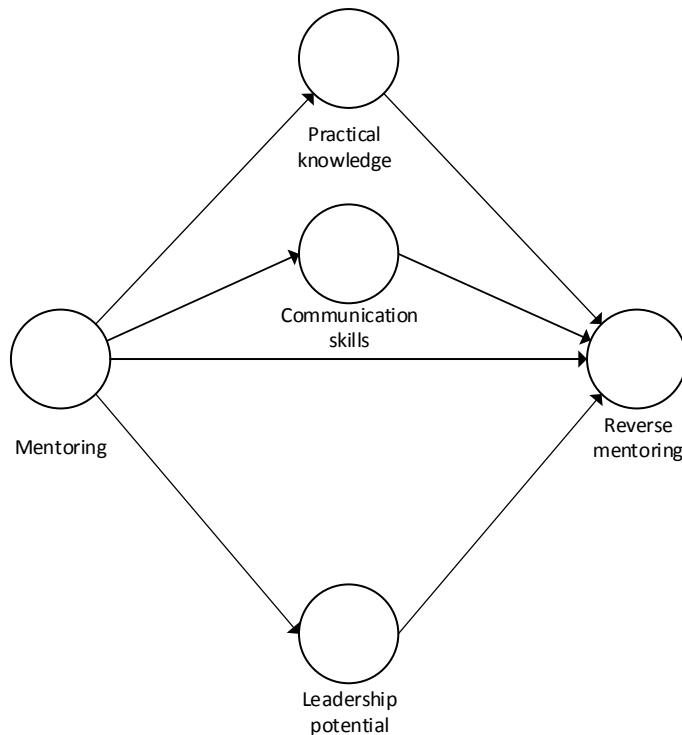


Figure 1 Structural model of reverse mentoring

Table of constructs, construct definitions, items, and item labelling is provided in Table 2. All items were observed on 1-7 Likert scales.

Table 2 Table of constructs, construct definitions, construct types, items, and item/variable names

Constructs	Construct definition	Construct type	Items (given on a 1 to 7 Likert scale)	Variable name
Mentoring	Extracurricular activities of leading and coaching business case competitors.	Reflective	Developing reciprocity and cooperation among students	Cooperation
			Encouraging active learning	Active learning
			Giving prompt feedback	Feedback
			Respecting diverse talents and ways of knowing	Talent development
Practical strategic management knowledge	Phronetic (industry and labor market-based) knowledge of undergraduates.	Reflective	Systematic industrial and labor related thinking	Systematic knowledge
			Analyzing the complex industrial and labor relations environment	Phronetic analysis
			Demonstrating an understanding of theory covered in the subject	Theoretical knowledge
			Improving Learning and Performance	Learning & performance
Communication skills	Soft skills which make undergraduates more suited for presentations and negotiations.	Reflective	Demonstrating appropriate communication skills with other team members	Peer-to-peer
			Present material in a format appropriate to the role, the task, the audience	Presentation
			Interpersonal skills -Working with others (Team building)	Interpersonal
Leadership potential	Development of leadership efficacy of business case competitors.	Reflective	Development of teamwork skills	Teamwork
			Development of time management skills	Time management
			Development of presentation skills	Presentation skills
			Development of leadership skills	Leadership
Reverse mentoring	Reciprocal intergenerational learning to and from talented undergraduates.	Formative	Challenging ideas	Challenge
			Support and feedback	Support

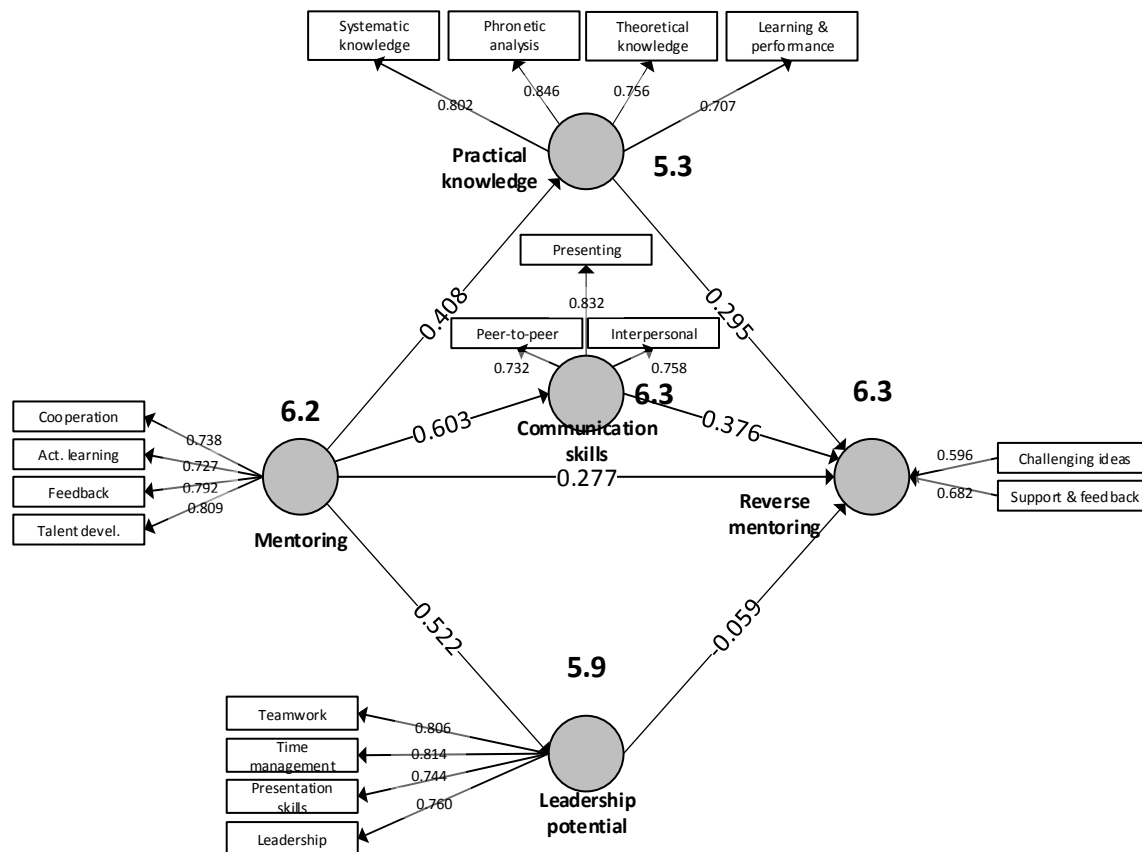


Figure 2 Model of reverse mentoring with path weights

Assessment of Reflective Measurement Models

The initial step to the assessment of reflective measurement models is the analysis of convergent validity and internal consistency. The four multiitem scales used in this model were found to have sound psychometric properties. Namely, all the reflective indicators had loadings above .70 and were significant at the .01 significance level. Each reflective indicator scored higher than .50 on the indicator reliability test, which implied that the underlying latent variables explained more than half of their observed reflective indicators' variance, while the smaller portion of the variance remained unexplained. The only exception is Learning & performance that scored borderline value of .499 on indicator reliability. This indicator was kept as its removal did not scale consistency reliability of Practical strategic management knowledge as a construct. Furthermore, all scales scored well above .50 for average variance extracted (AVE). According to the results obtained on loadings, indicator reliability and AVE, the scales and their reflective indicators have demonstrated convergent validity. Both composite reliability (CR) and Cronbach's α were significantly above the threshold value of .60 confirming excellent internal consistency of scales. According to our tests, all reflective measurements were well constructed (see Table 3) and well conceptualised.

Table 3 Convergent validity and internal consistency scale assessment

		Convergent validity			Internal consistency reliability		Discriminant validity
		Loadings	Indicator reliability	AVE	Composite reliability	Cronbach's Alpha	
Latent variable	Indicator	>0.70	>0.50	>0.50	0.6-0.9	0.6-0.9	HTMT confidence interval does not include 1
Communication skills	Peer-to-peer	0.732	0.535	0.601	0.818	0.668	Yes
	Presentation	0.832	0.693				
	interpersonal	0.758	0.575				
Practical strategic management knowledge	Systematic knowledge	0.820	0.673	0.615	0.864	0.790	Yes
	Phonetic analysis	0.846	0.715				
	Theoretical knowledge	0.756	0.572				
	Learning & performance	0.707	0.499				
Leadership potential	Teamwork	0.806	0.649	0.611	0.862	0.792	Yes
	Time management	0.814	0.662				
	Presentation skills	0.744	0.554				
	Leadership	0.760	0.578				
Mentoring	Cooperation	0.738	0.545	0.589	0.851	0.769	Yes
	Active learning	0.727	0.529				
	Feedback	0.792	0.627				
	Talent development	0.809	0.655				

The traditional methodological complement to convergent validity is discriminant validity (Hulland 1999). The results for discriminant validity testing is given in Appendix 3.

After assessing convergent validity, internal consistency and discriminant validity, we assessed formative measurement model. To assess the quality of one formative construct we had (Reverse mentoring) we have performed assessment for collinearity issues and the assessment of the significance and relevance of the formative indicators. When it comes to the items assigned to Reverse mentoring there were no collinearity issues identified as variance inflation factor (VIF) was well below the threshold value of 5 (see table 4). Tolerance on the other hand was well above 0.20.

Table 4 Assessment of Reverse mentoring's items collinearity

Items	TOL	VIF
Challenging ideas	0.978	1.022
Support and feedback	0.978	1.022

When it comes to Reverse mentoring's items significance and relevance, as shown in table 5 all the weight was significant at .01 significance level, while 95% confidence interval did not contain 0. Based on the findings in Tables 4 and 5 we have concluded that formative construct Reverse mentoring was well constructed and has good statistical properties.

Table 5 Assessment of Reverse mentoring's items significance and relevance

Items	Wight	t statistic	p value	95% conf.	Interval	Significance
Challenging ideas	0.595	3.035	0.003	0.238	0.982	0.010
Support and feedback	0.682	3.771	0.000	0.186	0.910	0.010

Given that our measurements were well defined we proceed to path model assessment.

Path Model Assessment

We firstly assessed structural model for collinearity issues. For this step, we used the latent score estimates. When assessing the structural model for collinearity issues it was necessary to observe groups of exogenous latent variables that explain/predict particular endogenous latent variable. The results provided in Figure 4 shows that there were no collinearity issues in the path model, given that for all predictors TOL was well above .20 and VIF was well below 5.

Table 6 Collinearity diagnostic for the exogenous latent variables

Endogenous	Exogenous	TOL	VIF
Reverse mentoring	Communication skills	0.610	1.639
	Practical strategic management knowledge	0.712	1.404
	Leadership potential	0.629	1.590
	Mentoring	0.591	1.692

After testing for collinearity issues, we assessed the significance and relevance of the structural model relationships. The bootstrapping procedure showed that 7 out of 8 inner path weights were significant (see Figure 3 and Appendix 4). However, the Leadership potential → Reverse mentoring path coefficient had a small and insignificant weight which was unexpected. The reasons why this might have happened will be discussed in the following section.

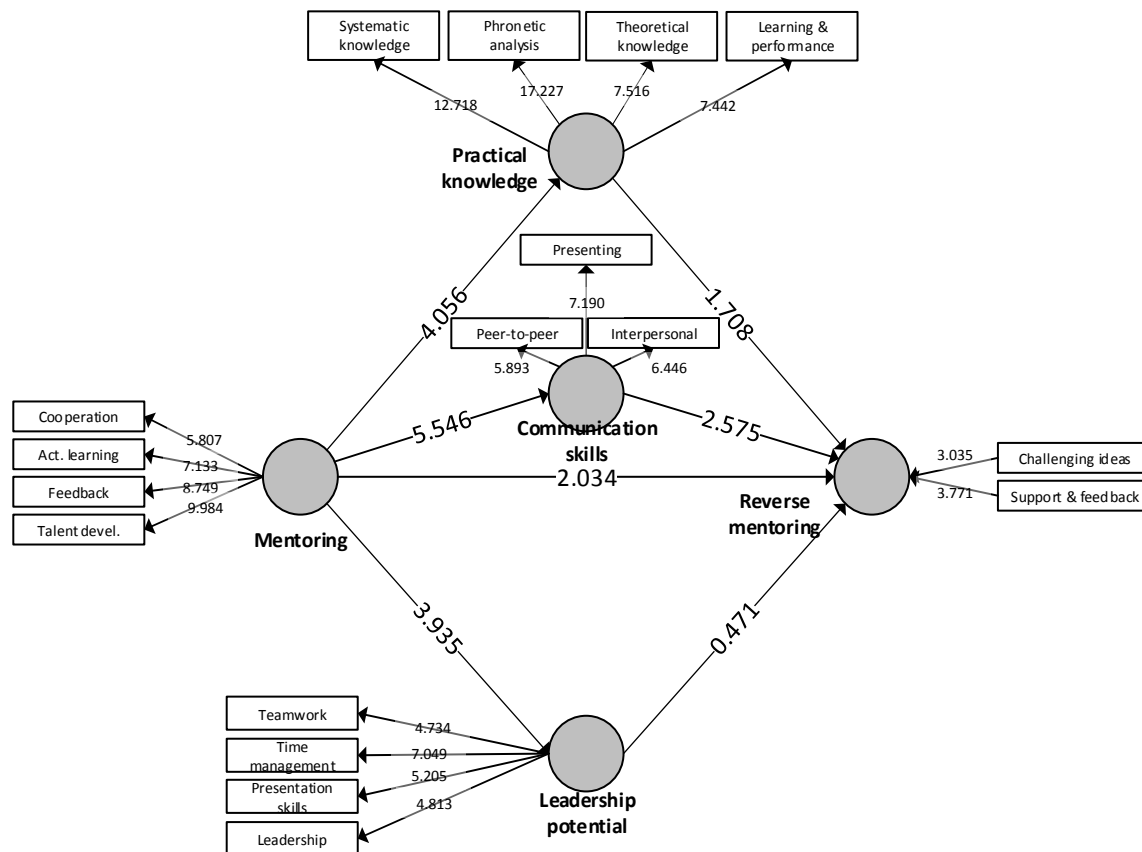


Figure 3 T values for the path weights

Then, we assessed the level of R^2 . In total, there were four endogenous latent constructs. Of particular interest for prediction and explanation by the model was Reverse mentoring. In the case of Reverse mentoring, the model explained 53% of its variance which is according to the marketing studies using PLS-SEM considered to be a substantial amount of variance explained (Hair et al., 2017). Furthermore, the model explains 36.3%, or more than third of the total variance of Communication skills and 27.2% of Leadership potential. The levels of explained variance in all of the endogenous constructs are very satisfactory given that we had a parsimonious model. However, if this study was considered as a customer behaviour study where models that explains 20% or more of some focal phenomenon is considered to have an excellent predictive and explanatory capability, the R^2 scores for Reverse mentoring, Communication skills and Leadership potential would be deemed more than satisfactory.

Table 7 R^2 of the endogenous latent variables

Endogenous constructs	R^2	R^2 adj.	Determination
Communication skills	0.363	0.351	Moderate
Practical strategic management knowledge	0.166	0.151	Weak
Leadership potential	0.272	0.259	Moderate
Reverse mentoring	0.530	0.496	Substantial

We assessed the effect sizes. Effect sizes (f^2) show the size of the predictive impact of an exogenous latent variable on an endogenous latent variable. When speaking of Reverse mentoring, Communication skills is the most important predictor, followed by Practical strategic management knowledge and Mentoring. Communication skills has a medium predictive impact on Reverse mentoring, while practical strategic management knowledge and Mentoring have a small predictive impact. It was surprising to find out that Leadership potential had no predictive impact. Also, it was very interesting to discover that Mentoring has large predictive impact on Communication skills which points to the fact that mentoring of case study competitors significantly improves their communication skills. As already mentioned, business case competition are an instrument for the development of analytical thinking, and profoundly improves the implementation of core strategic management principles learned in the classroom which supports self-confidence and enhances undergraduates' communication skills.

Table 8 f^2 of the endogenous latent variables in the second-step customer's value creation path model

	f^2	Size
Communication skills -> Reverse mentoring	0.174	Medium
Practical strategic management knowledge -> Reverse mentoring	0.131	Small
Leadership potential -> Reverse mentoring	0.004	No effect
Mentoring -> Communication skills	0.571	Large
Mentoring -> Practical strategic management knowledge	0.199	Medium
Mentoring -> Leadership potential	0.374	Large
Mentoring -> Reverse mentoring	0.092	Small

Finally, we assessed the model's predictive relevance (Q^2). Using blindfolding procedure, model's predictive relevance was estimated. It was found that model has moderate predictive relevance for Reverse mentoring and Communication skills, and small predictive relevance for Practical strategic management knowledge and Leadership potential (Table 10). This is satisfactory given model's parsimony. Improved Q^2 could be achieved by introducing more latent constructs i.e. predictors.

Table 9 Model's predictive relevance

	Q^2	Size
Communication skills S	0.171	Medium
Practical strategic management knowledge	0.087	Small
Leadership potential	0.122	Small
Reverse mentoring	0.228	Medium

DISCUSSION AND CONCLUSION

Key Findings

The aim of our study was to examine the development of business case competitors' (leadership potential and phronetic knowledge and skills) through mentoring activities and a recursive effect of reverse mentoring. By examining 55 mentors from the business schools in 18 different countries that competed at premier global business case competitions, results confirm that mentoring has a high impact on business case competitors. Given all indicators discussed about, the model has good performance given its parsimony.

Table 10 Structural model summary

Hypotheses	Decision
H1: Good case study mentoring improves mentees' knowledge of theory and practice of management	Confirmed at 1% confidence level
H2: Good case study mentoring improves mentees' communication skills	Confirmed at 1% confidence level
H3: Good case study mentoring improves mentees' leadership potential	Confirmed at 1% confidence level
H4: Good case study mentoring results in good reverse mentoring	Confirmed at 1% confidence level
H5: The higher the level of mentees' knowledge of management theory and practice the stronger the reverse mentoring they provide	Confirmed at 10% confidence level
H6: The higher the level of mentees' communication skills the stronger the reverse mentoring they provide	Confirmed at 1% confidence level
H7: The higher the leadership potential of the mentees, the better reverse mentoring they provide	Not confirmed

As shown in Table 11, the results support the thesis that mentoring strongly affects development of phronetic knowledge and skills of case testers. Current body of knowledge on mentoring is marshaled around the idea that mentoring is a carrier of knowledge (Swap et al. 2004) and a catalyst of cognitive, skill-based and affective learning (Hezlett 2005). As indicated by Lankau and Scandura (2002) personal learning is a strong mediator between mentoring function and various organizational consequences. In the context of our study, personal learning tends to stimulate further knowledge flow and create distinctive competencies of business schools. These competences are created within the teams, but then transferred to new testers via reverse mentoring.

The results indicate that mentoring strongly affects the development of case competitors' communication skills. Teaching strategic management generally emphasizes the importance of good communication. Mentors themselves need to be great communicators, and to use their enthusiasm and provide trainings for students to excel their communication skills.

The results also provide the evidence that mentoring has high positive effects on the development of leadership potential of talented strategic management undergraduates competing at premier global business case competitions. Our findings are in line with prior studies examining the effect of

mentoring on developing tomorrow's leaders (Sosik and Lee 2002; Lester et al. 2011). Mentoring is advocated as a powerful tool for developing leadership behaviors (Solansky 2010). It should be noted that mentoring business case contesters requires intensive mentor- protégé relationships. Accordingly, we confirmed that mentoring is a powerful tool for enhancing leadership skills but requires mentors to heavily invest their resources to mentoring activities. Similar findings were reported by Solansky (2010).

Additionally our study shows that some mentoring has its dynamics and may end up with reverse mentoring (Humbert and Rose 2016). The combined effect of leadership and phronetic knowledge and skills development among case competitors significantly affects the development of inverse mentoring. The findings are subject to the context, namely a specific kind of mentoring where protégés are highly talented management students. As talented students are a scarce resource, these kinds of mentoring relationships generally lack 'the Paradox of Equal Inequalities' (Feldman 1999: 253). Reverse mentoring becomes a knowledge transfer mechanism as it evolves to a peer-based relationship (Bryant 2005). The strong support of business schools for business case competitor mentoring provides a fertile soil for the development of knowledge circulation relationships. This support is an important institutional glimpse of hope for the full development of supportive and recursive mentoring (Eby, Lockwood and Butts 2006). Ending up with a peer-type mentoring is not a finding to be generalized to all mentoring activities and processes.

The only hypothesis (path) not confirmed by the study results is that leadership development will affect reverse mentoring. We can only speculate on the reasons. It might be that once the students enter premier global case competitions they become slightly narcissist. Maccoby (2000) argues that narcissist leaders have a distaste for mentoring as they lack of empathy and seek for extreme independence. Additional speculation is that business case competitions develop transformational rather than transactional leadership styles (Vera and Crossan, 2004). Further knowledge flux and learning require transactional modes of leadership.

Contributions and Implications

Our study makes three important theoretical contributions to strategic management education. First, we emphasized a specific niche of strategic management education – learning through competing at global business case competitions. We delineated the generic competition process, and raised awareness of an emerging method for strategic management education. As a developing method of strategic management education it brings new peculiarities to the education process. However, preparing teams for these competitions requires immense efforts and resources of business schools and significant extracurricular mentoring activity. Second, we clarify the knowledge flux between mentors and business case contesters' by exploring the causal relationships between mentoring,

undergraduates' development and reverse mentoring. More importantly, we stress relevant and practically applicable strategy education (Rynes, Bartunek and Daft 2001; Jarzabkowski and Paul Spee 2009). Third, our study contributes to the dynamic capabilities theory. Business schools cannot create distinct competencies in classrooms as the knowledge is public. However, small teams of business case contesters working in a multicultural environments tend to create unique and hard-to-mimic knowledge (Hajro, Gibson and Pudelko 2015). Further on we will highlight the theoretical and practical implications in these fields.

Emphasis on global business case competitions and contesters' development. Business schools that compete at case competitions usually apply case studies in various courses: finance, strategy, marketing which helps students to develop problem solving skills and be familiar with using the case methods. Working with students in the classroom is not sufficient to prepare a team for a case competition. Some business schools that were investigated in our study have a course dedicated to case studies at their university. Other mentors work with students' through additional extra-curricular activities. Another important practice is that some mentors who prepare students for competition usually invite consultants to help them to stimulate students to overcome lack of knowledge when it comes to assumptions and educated guessing through solving case studies in strategic management (examplifying leading consulting houses such as McKinsey, BCG, PwC, KPMG, EY, Bain) (Ammerman 2012). For example, the use of the strategic problem-solving model of McKinsey explains the role of business need (strategic problem of client company), analyzing and presenting data, developing strategic implementation as a solution and align with leadership - vision of client company (Rasiel and Friga 2001). Case studies also provide business schools an avenue to improve collaboration between academic work and practice.

Knowledge flux at business case competitions and relevant strategic management education. Mentoring is a useful tool in specific forms of strategic management education. Still, knowledge generation is a two-way relationship and simultaneously affect both mentors and protégés (Ragins and Verbos 2007). The main practical implications of our study are related to knowledge and skills improvement of both mentors and undergraduates. Although not explicitly investigated, undergraduates at case competitions interact with professionals from the practice, and network and friend up with their peers from different cultures. This also creates a body of phronetic skills and develops leadership potentials. This knowledge flux ultimately leads to business school learning and improves the reputation of business schools internationally.

Learning from others mentor on an international level is crucial for the business school as it improves practical knowledge of strategic management analysis, decision, implementation and control. Experiences at case competitions show that business schools have different perspectives regarding

structure, strategic analysis, choosing key criteria for strategic decision making and implementation plans of strategic recommendations and developing key performance indicators for measuring results. Mentors and their teams use a combination of theoretical knowledge acquired at university and new knowledge that they receive at competitions from other colleagues. Recently a pertinent example occurred at an international case competition in Porto. The winning team received the opportunity to work on implementing their recommendation in the real world. This is important way of applying international knowledge on other foreign – local market to help organizations to build better strategic direction for the long term (Hedler 2011). This example indicates the practical relevancy of strategy learned at business case competitions.

Creating business schools' competencies and reputation. An important implication of this study is that growth could be attributed not only to mentors and undergraduates, but to business schools as well. Our study supports the thesis that business schools create their distinctiveness by 'exemplary attitudes and dispositions their professors champion and display in encouraging the pursuit of knowledge and the practical efficacy of action' (Chia and Holt 2008: 484). Dedicated mentors and top talent undergraduates need to follow their mission in the process of creating a competitive advantage in the business education environment. Participating in premium global case competitions is an innovative strategic management educational project that will improve a mentor's practical knowledge, skills and leadership development and lead to improved image and reputation of the business school at a global level.

The study also acknowledges that the support from the mentors plays a vital role in the actual development of important competences and managerial skills among students. (Damnjanovic, and Mijatovic, 2017). Mentors becoming more competitive on the job market because of international experience and network that they build and leadership approaches that they adapt at the different case competitions. Global case competitions help educational institution to develop better connection between academia and practice (Burke, Carter and Hughey, 2013) with providing innovative way of teaching using the real business examples.

Strengths, Limitations and Further Recommendations

An important strength of our study is its global overview. Globalization of management education is highly on the agenda of both scholars and practitioners (Doh 2010). Furthermore, studies covering global issues in management education are sparse (see Erez, et al. 2013). More precisely, we reported the findings from 18 countries from four large geographic regions. This feature, nonetheless, drives certain flaws. The cultural differences in mentoring/reverse mentoring activities were not captured by this study. This creates an important avenue for further research. Further studies should concentrate on the specificities of the examined phenomena in different cultural settings. Another study limitation

is the fact the findings only represent the mentor point of view. Future research studies should include the opinion of students as well, providing a clearer image of this relatively new innovative learning method.

Another quality of our study is the focus on a particular strategic management education niche - mentoring of premier global business case competitors. Even though many schools conduct business case competitions, management education literature is rather sparse in this area (Orlitzky and Benjamin 2003). Global business case competitions are almost entirely beyond the scope of the existing scholarly publications. Focusing on a narrow niche elevates the issue of the sample size. The relatively small number of interviewed mentors raises a question of generalizability of our findings. Further studies should examine mentors from other business case competitions in order to improve the validity of findings. It should also be noted that this study is cross-sectional by nature, and was done at a specific point in time. For a more prolific study, a longitudinal analysis would be needed. Only then would the evolutionary characteristics of mentoring, case competitor development and reverse mentoring be captured.

Additional value this study provides is rigor and analytical development of research instruments. Nevertheless, a myriad of different forms of educational activities have been unexamined. Follow up studies should focus on incorporating other educational activities outside the realm of mentoring to provide more comprehensive findings.

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APPENDIX 1. THE COMPILED LIST OF PREMIER GLOBAL CASE COMPETITIONS

Table 11 The compiled list of premier international case competitions (<http://www.champions-trophy.co.nz/international-results/>)

Date	Competition	Venue	Teams
Feb 16	Champions Trophy Case Competition	University of Auckland	12
Feb 16	BI International Case Competition	BI Norwegian Business School	12
Feb 16	Heavener International Case Competition	University of Florida	20
Feb 16	John Molson Undergraduate Case Competition	Concordia University	24
Feb 16	CBS Case Competition	Copenhagen Business School	12
Mar 16	McGill Management International Case Competition	McGill University	15
Mar 16	Sauder Summit Global Case Competition	UBC Sauder School of Business	9
Mar 16	Scotiabank International Case Competition	Ivey Business School	12
Mar 16	University of Navarra International Case Competition	University of Navarra	16
Apr 16	International Case Competition@Maastricht	Maastricht University	16
Apr 17	The Global Business Case Competition	University of Washington	12
Apr 18	Belgrade Business International Case Competition	University of Belgrade	16
May 16	Chulalongkorn International Business Case Competition	Chulalongkorn University	12
Jun 16	HSBC/HKU Asia Pacific Business Case Competition 2016	Hong Kong University	30
Aug 16	SDS Queenstown International Case Competition	University of Otago	12
Aug 16	Asian Business Case Competition	Nanyang Business School	9
Sep 16	UOB-NUS Case Competition	National University of Singapore	16
Oct 16	Thammasat Undergraduate Business Challenge	Thammasat University	16
Oct 16	Citi- HKUST International Case Competition	Hong Kong University of Science and Technology	18
Oct 16	Global Business Case Challenge	Ritsumeikan Asia Pacific University	13
Nov 16	Australian Undergraduate Business Case Competition	University of Melbourne	16

APPENDIX 2. THE 13-ITEM LIST OF PHRONETIX KNOWLEDGE AND SKILLS OF BUSINESS CASE CONTESTERS

Items
Critical and strategic thinking
Systematic industrial and labor related thinking
Analyzing the complex industrial and labor relations environment
Demonstrating an understanding of theory covered in the subject
Understanding specific roles in managerial practice
Demonstrating appropriate communication skills with other team members
Present material in a format appropriate to the role, the task, the audience
Improving learning and performance
Information-communication technology (ICT) skills
Leadership skills (Communication)
Interpersonal skills -Working with others (Team building)
Conceptual skills (Problem solving and decision-making)
Functional skills (for example, strategic management)

APPENDIX 3. DISCRIMINANT VALIDITY

Each of the 15 individual reflective items had the highest loading on the scales they were originally assigned to. Furthermore, the results of Fornell-Larcker test demonstrated that all the scales were distinctive, meaning that they indeed measure and represent different latent phenomena (the square root of AVE for each scale was higher than its correlations with other latent constructs in the model – see table below).

Discriminant validity test using Fornell-Larcker criterion					
	1	2	3	4	5
Communication skills	0.775				
Practical strategic management knowledge	0.390	0.754			
Leadership potential	0.510	0.503	0.728		
Mentoring	0.603	0.408	0.522	0.767	
Reverse mentoring	0.628	0.525	0.426	0.593	Formative construct

Additional screening for discriminant validity were performed using HTMT tests (table below). HTMT scores for all pairs of reflective latent constructs were below the threshold of .85 while the 95% confidence interval did not contain number 1. Thus, it was concluded that all of the scales present in the model achieved discriminant validity meaning they observe semantically different constructs.

Heterotrait-Monotrait Ratio (HTMT)						
	HTMT	t value	p values	95% conf.	Interval	Significance
	0.534	4.895	0.000	0.393	0.804	0.01
	0.669	4.528	0.000	0.382	0.953	0.01
	0.609	4.957	0.000	0.426	0.881	0.01
	0.822	6.573	0.000	0.447	0.989	0.01
	0.518	4.663	0.000	0.333	0.770	0.01
	0.646	4.491	0.000	0.354	0.894	0.01

APPENDIX 4. SIGNIFICANCE AND RELEVANCE OF THE STRUCTURAL MODEL RELATIONSHIPS

	Path coefficient	t value	p values	95% conf.	Interval	Significance
Communication skills -> Reverse mentoring	0.376	2.575	0.010	0.062	0.635	0.01
Practical strategic management knowledge -> Reverse mentoring	0.295	1.708	0.088	0.020	0.684	0.10
Leadership potential -> Reverse mentoring	-0.059	0.471	0.638	-0.459	-0.006	No signif.
Mentoring -> Communication skills	0.603	5.546	0.000	0.376	0.796	0.01
Mentoring -> Practical strategic management knowledge	0.408	4.056	0.000	0.227	0.630	0.01
Mentoring -> Leadership potential	0.522	3.935	0.000	0.251	0.759	0.01
Mentoring -> Reverse mentoring	0.593	4.601	0.000	0.303	0.805	0.01

KNOWLEDGE-INTENSIVE ENTREPRENEURSHIP AND BIG DATA: IMPLICATIONS FOR SMART TOURISM DESTINATIONS

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ABSTRACT

The paper aims to contribute at the debate on the Knowledge-intensive Entrepreneurship at the light of the emerging paradigm of Big Data. Focusing on tourism, as knowledge-intensive industry with several implications for the regional growth, the study shows as the huge amount of data available for, from and about tourists can nurture the process of Knowledge-intensive entrepreneurship and sustain the creation of a Smart Tourism Destination. The paper presents the empirical evidences related to Apulia, a Southern European region and destination of growing popularity. By adopting a mixed methodological approach based on action research and business analytics, the study proposes the comparative analysis of digital tourism initiatives related to unconventional tourism experiences to demonstrate how it is possible to create and capture social Big Data produced by stakeholders in a certain destination for supporting knowledge-intensive entrepreneurial processes.

Keywords: Smart Tourism; Smart Destination, Big Data; Knowledge-intensive Entrepreneurship; Business Analytics.

INTRODUCTION

Knowledge-intensive Entrepreneurship and Big Data are two of the most representative paradigms of the so-called knowledge economy and represent emerging fields of investigation for researchers and practitioners. Characterized by turbulence, the continuous changing in the offer and demand of good and services, the emerging of new types of jobs and market's rules, the knowledge economy is, in a neo-schumpeterian perspective, an expression of the key enabling technologies. It is the knowledge-intensive nature of such technologies to determine the profile of the knowledge economy, also defined entrepreneurial economy (Audretsch and Thurik, 2001; Thurik, 2008; Romano, et al., 2014). In this context, the competitiveness of individuals, organizations and territories results to be more and more depending by the capacity to manage the large amount of knowledge continuously created over the world. Big Data identify this large amount of data, but if there is a consolidating set of works

concentrated on the comprehension of the technological dimensions of the phenomenon, its implications in an entrepreneurial perspective is still lacking.

The emergence of Big Data is a common trend for all industries, but it is especially relevant for information intensive ones, such as tourism. In this venue, the recent debate on Smart Tourism has attempted to demonstrate the several areas of implications and challenges that Big Data can offer to the competitiveness of tourism destinations and companies. Characterized by advanced services, high degree of innovation and the presence of open, integrated and shared processes for enhancing the quality of life for both residents and tourists (Shapiro, 2006; Caragliu et al., 2009, Wang and Xiang, 2012, Micera et. al 2013), smart destinations can compete by activating processes of knowledge creation (Shaw and Williams, 2009) as well as by the way the large amount of knowledge is really processed and transformed in competitive assets. All these confirm the growing relevance of data in the successful positioning of tourist companies and destinations as well as the need of sustaining a process of Knowledge-intensive Entrepreneurship able to drive the process of development of Smart Tourist Destinations (Wood, 2002; Vargo et al., 2009).

Framed in the above premises, the paper aims to understand how the exploitation of Big Data can represent a base of opportunities for the creation of Knowledge-intensive Entrepreneurial processes for the growth of a Smart Tourism Destination.

In this vein, the paper presents some empirical evidences coming from a research project aimed to sustain the creation of Knowledge-intensive Entrepreneurship for the smart growth of the Apulia destination. The remaining of the paper is structured as follows: the literature background summarizes the emerging trends in the debate on Knowledge-intensive Entrepreneurship, Big Data and Smart Tourism Destination; the methodology presents the analytical framework adopted to investigate trends related to a set of regional digital local experiences; in the discussions and implications, the evidences resulting from the analysis will be presented together with the aim to identify emerging opportunities for creating Knowledge-intensive Entrepreneurship; conclusions summarize the main evidences and limitations of the study.

LITERATURE BACKGROUND

Knowledge-intensive Entrepreneurship

The issue of Knowledge-intensive Entrepreneurship is nowadays central in the academic and institutional debate. Due at the nature of technologies addressing the creation and execution of an entrepreneurial process, the Knowledge-intensive Entrepreneurship is configurable as the socio-economic process performed by knowledge operators, able to leverage on a consolidated knowledge base, the integration of different expertise and domains (Malerba, 2010). The Knowledge-intensive

Entrepreneurship requires individual capacities, competencies and attitudes to transform new ideas, technologies and inventions in economic and social value, through innovative business models. Embedded into complex and articulated networks of relationships, Knowledge-intensive Entrepreneurship presents risks due to the difficulties to evaluate market potential (business risks), and the reliability of the technology-based offerings (technology risks) (Byers, et al., 2011).

The Knowledge-intensive Entrepreneurship is so identifiable into the process emerging from the mixture of individual talents skills, such as creativity, instinct, courage, capabilities of vision, practical sense, passion for innovation and challenges, passion for experimentation and leadership with technical, managerial and financial assets to satisfy customers' needs (Venkataraman, 2004).

Another element of the Knowledge-intensive nature of the entrepreneurship can be identified into the scientific debate on the relevance of the entrepreneurial learning. As argued by Cope (2005), Minniti and Bygrave (2001), since the centrality of the knowledge is confirmed by the nature of the competitive dynamics and trends in the current scenario, the process of entrepreneurship shows a growing relevance as process of learning, in all the phases of an entrepreneurial process. As such Knowledge-intensive Entrepreneurship depends on individual and organization abilities, intelligence, creativity and tools to elaborate data coming from the internal and external environment, the emerging paradigm of Big Data results to be a field of great opportunities for taking inspiration, grasping insights and knowledge from employees, customers, suppliers as well as to nurturing a continuous innovation process. In the paragraph that follows, an overview of the Big Data is provided with the aim to identify emerging trends and elements of relevance for the creation of Knowledge-intensive Entrepreneurship and the development of Smart Tourism Destinations.

Big Data: overview of a phenomenon of growing complexity

The term Big Data refers to any set of data that, with traditional systems, would require a large amount of time to be analyzed (Laney, 2001; Gandomi and Haider, 2015). They are characterized by the large size of dataset (terabyte and more), the presence of structured and unstructured data, the short life-cycle of contents (Laney, 2001). More power and decreased costs have enabled firms to store ever greater amounts of data and conduct more in-depth analysis on a regular basis, either through their own IT systems or in the cloud (Vance, 2011).

Big Data is dramatically changing into a well consolidated offering of servers and software for knowledge management using new databases forms, new programming languages, new hardware architectures, for processing data, and new generation of distributed processing tools and intelligent software has emerged (Del Vecchio et al., 2014; Erickson and Rothberg, 2015).

According to White (2010), Big Data are now diffusing into all the areas of a company becoming a strategic factor for companies' competitiveness. Jin et al., (2013) argued as Big Data are radically

changing the world, affecting daily life of individuals, companies and public institutions. With the aim to afford the complexity of the technological and managerial dimensions of Big Data, a set of variables arose in the literature such as the 6 Vs: Volume, Velocity, Variety, Veracity, Variability and Value. The first three Vs are more focused on the technological perspective of Big Data (Laney, 2001; McAfee and Brynjolfsson, 2012), while the second three ones are the result of a research more concentrated on the managerial implications, challenges and exploitation actions and strategy aimed to create organizational value (McAfee and Brynjolfsson, 2012), to sustain the innovation of products (Mayer-Schönberger and Cukier, 2013), to make more effective firms' predictive activity (Kaisler, et al., 2013) and to offer opportunities for customization (Brown et al., 2011).

The availability of Big Data has created a new era also for data analysis and elaboration to discover unknown patterns, to find out what customers want, what they evaluate, to get closer to customers, to gain a wealth of information about their behaviors and preferences, as well as to identify new market trends and new opportunities to remain competitive (Ndou and Beqiri 2014).

However, while it is largely recognized the relevance of the paradigm, how to transform all those data in concrete input for the entrepreneurial development is still low considered (Schutt and O'Neil, 2013; Jin et al., 2015). Creative ideas, qualified human capital able to combine technical abilities, managerial skills and industry and technological knowledge are necessary elements to afford the challenges associated to Big Data. This is a trend common to all the industries, but assumes more relevance information intensive ones, such as tourism.

Smart Tourism Destination

In the current scenario, characterized by the large diffusion of the ICTs and by the knowledge as primary asset of the competition of individuals, organizations and regions, tourism arises more and more as a knowledge intensive service industry. This is because tourism, as personal experience resulting from the visit in a certain area, results to be composed by a growing number of services and products with a growing relevance of knowledge. As argued by Buhalis and Law (2008), the issue of the adoption of ICTs in tourism is a well consolidated field of study, however their implications in terms of enabling factors for the emerging nature of tourism as service-based and knowledge intensive industry are still unexplored.

Defined as local tourism system characterized by advanced services, high degree of innovation and the presence of open, integrated and shared processes for enhancing the quality of life for both residents and tourists (Komninos, 2002; Florida, 2003; Shapiro, 2006; Hollands, 2008; Caragliu et al., 2009; Wang and Xiang, 2012; Micera et. al 2013), Smart Tourism Destination is nowadays the object of a deepen analysis aimed to derive models, tools and strategies to sustain the process of intelligent configuration of destinations (Buhalis and Law, 2008; Sigala et al., 2012; Law, et al., 2014; Xiang et al., 2015).

A Smart Tourism Destination is not based simply in technologies and the new approaches to data collection, management and sharing, but it encompasses technology, people and institutions and it is increasingly related to human capital (their creativity, diversity and education) and social capital, which facilitated and supported by ICT infrastructures fuel sustainable growth and enhance the quality of life (Nam and Pardo, 2011). Therefore, the creation of a Smart Tourism Destinations requires the integration of technologies, systems, services, and capabilities into an organic network that is sufficiently multi-sectorial and flexible for future developments, and moreover, open-access (Albino, et al., 2015).

Buhalis and Amaranggana (2014;2015) defined a Smart Tourism Destination as the result of the interconnection of tourism destination and stakeholders' communities through dynamic platforms and knowledge intensive flows of communication and enhanced decision support systems to maximize destination competitiveness and tourist satisfaction.

Neuhofer et al. (2013) focused on the "technology enhanced tourism experiences" as integrative conceptual framework to describe tourism of our days as combination of "experiences, co-creation and technology" (Neuhofer et al., 2013).

With the arise of ICTs and social network platforms tourists have not only the possibility to know and compare their intentions of trips and journeys, but also to share and learn from the other, to acquire suggestions and recommendations for maximizing their time in the destinations, to explore them before to be there and continue to be linked to them also after the vacation. The analysis of Big Data generated by consumer on these social network platform, so called social media analytics (Ducange et al., 2018) represents a new challenge for companies and a new requirement for competition in global market. The debate on the innovative entrepreneurship previously recalled suggests some interesting implications in the field of tourism: to operate as an innovative entrepreneur in the tourism means to provide the right attention at the social and environmental dimension of the socio-economic processes performed, also in a technological perspective.

Focusing on Big Data as enabling perspective and main challenge for a Smart Tourism Destination, the paper assumes the Knowledge-intensive Entrepreneurship as the key process for its effective deployment. Framed in those premises and focusing on Apulia, as Southern European region and destination of growing popularity, the paper provides empirical evidences related to a set of digital local experiences with the aim to identify opportunities and dynamics supporting the emergence of Knowledge-intensive Entrepreneurship.

RESEARCH METHODOLOGY

In order to comprehend how the exploitation of Big Data can represent an opportunity for the creation of Knowledge-intensive Entrepreneurship and sustain the smart growth of a destination, the paper adopts a mixed methodological approach.

An action research method (Myers, 1997) based on the explorative analysis of digital tourism initiatives related to unconventional experiences has been used in order to create and capture the Big Data produced by different tourism actors, and to identify areas of entrepreneurial development. This phase covered a period from April 2015 to February 2016 and has seen the involvement of the research team of Laboratory of Management Engineering at the University of Salento and the larger community of partners associated to the research project titled Puglia@service. The active involvement of researcher in this phase has consisted in: the co-designing of the initiative, the training of storytellers and definition of transmedia communicational strategy, the sharing of social media track, business analytics for monitoring ongoing and the redaction of a final report.

Data collection in this phase was based on the integration of traditional interviews with key informants, the analysis of primary sources (official websites and social profiles, etc) and secondary sources, and business analytics (Chen, et al., 2012). About the in-depth interviews, they have been structured in the following phases: *plan, develop instrument, collect data, analyse data* and *disseminate findings* (Boyce & Neale, 2006). The interviews have been conducted with a flexible approach through a semi-structured schema and following an inductive and iterative process (Miles & Huberman, 1984; Strauss & Corbin, 1990). The interviews have been addressed to at least one responsible of each the digital event observed, identified as key informants (Kumar et al, 1993). Useful to support organizations in the comprehension of their business and social environments and making more effective the decision making process, business analytics is a large family of technologies, methodologies and approaches to analyse Big Data (Chen et al., 2012). Specifically, business analytics has been used in order to collect, monitor, analyze, summarize, and visualize social media data through the use of a Keyhole.com, a free version of a proprietary tool for social tracking and cluster analysis.

The activity of business analytics has required the identification of official pages, accounts and keywords (#) to monitor on the three main social networks (Facebook, Twitter and Instagram). After the setting of the parameters related to the time of observation, the tool operated the data extraction, collection and analysis by providing statistics regarding the socio-demographics, the behaviours manifested by users and followers of the event in terms of timeline, the main topic and the most followed one, types of device used for sharing, and a preliminary form of clustering of issues debated in the form of a tag cloud. After a process of data reduction and synthesis and in accordance to

Eisenhardt (1989), we conducted a final iteration between data collected, both from social analytics and interviews, and the literature on Smart Tourism, Knowledge-intensive Entrepreneurship, and Big Data to identify the theoretical foundations for our arguments.

The context of analysis

The context of analysis, in the whole research, has been identified into the Apulia, a Southern Italian region, and destination of recognized and growing reputation. Due to the presence of a favourable environmental factors, cultural heritage, agro-food industry, infrastructures, Apulia is a region vocated to tourism as argued by Pedrini (1984). About the digital local experience, the sets of study identified are presented in the following table 1:

	Appiedi	MyGargano Experience	365Puglia Days	Carnevale di Putignano 2016
Nature of the experience	Slow tourism, walking and discovering of ancient roots, from Brindisi to Matera (South of Italy) along the old roman "via Appia" in coincidence with the "via Francigena" of South of Italy.	Instagram tour for the valorization of naturalistic, agrifood and cultural heritage of Gargano area (the norther area of Apulia) and for its deseasonalization.	Blogtour for discover the Apulia region (Bari and Valle d'Itria areas) through social and digital marketing tools, in a deseasonal perspective.	Carnival and goliardic experience in one of the most ancient Italian carnivals 622nd edition).
Promoters and Partners	Edeno Association and Brindisi Local Chapter of the Italian Touring Club. GAL-Gargano, IgersItalia and Pugliapromozione, others partners	Gal-Gargano, IgersItalia and Pugliapromozione, others partners	Italica Turismo Spa and Laboratory of Management Engineering at the University of Salento, others partners	Foundation of Putignano' Carnival, Pugliapromozione and Municipality of Putignano, others partners.
Official Hashtag	#appiedi #apuliasmartourism	#mygarganoexperience	#365PugliaDays #ItalicaExperience #apuliasmartourism	#carnevalediPutignano 2016 #lacasadifarinnella
N° of storyteller	8	15	8	0

Table 1. *Digital Local Experience*

About the socio-economic profile of the region, it is important to note as Apulia is a Southern European region belonging to the area of convergence as characterized by structural delays. In affording to the challenges of the intelligent growth required by the EU within 2020, as stated in the "Smart Specialization Strategy" (McCann and Ortega Argiles, 2011; Foray et al., 2011; EC, 2012), Apulia is called to promote the development of Knowledge-intensive Entrepreneurship by moving from the valorization of key enabling technologies in its vocational industry and by this to increase its socio-economic wellness and achieve the intelligent and sustainable growth (McCann and Ortega Argiles, 2011; Foray et al., 2011).

RESEARCH FINDINGS

The cases can be classified as unconventional events based on the valorisation of the different regional assets. They are commonly characterized by the adoption of social networks as enabling platform of

dialogue with visitors and customers for their feedback exchange, knowledge repository and sources of inspiration for travellers, companies and destination makers. Their analysis and identification has been carried out in the frame of an ongoing research project with the aim to assess the digital readiness of the region as well as to promote strategic models and knowledge-intensive business services for the competitiveness of the Apulia destination.

In the figure that follows an example of the outputs resulting from the analysis of each digital local experience is provided.

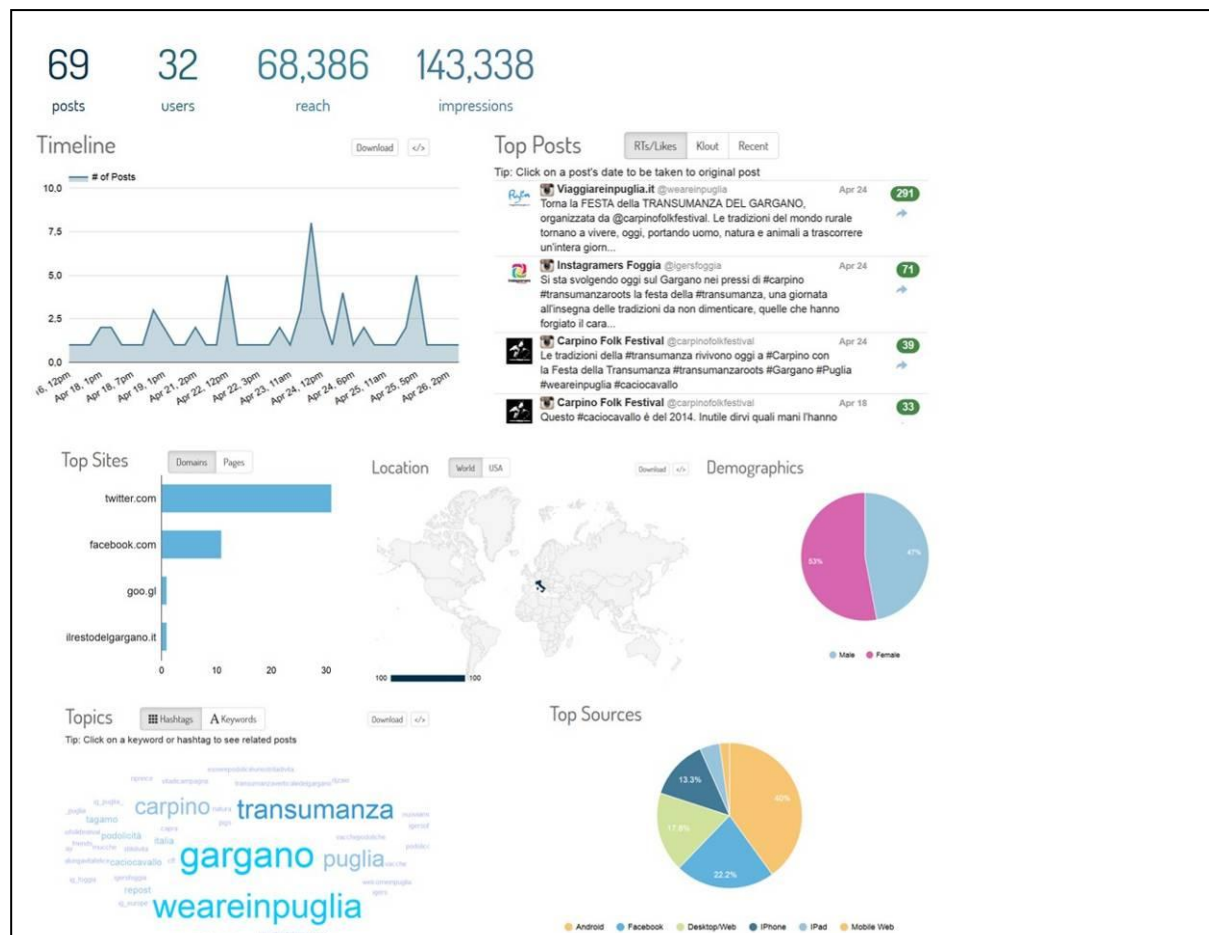


Figure 1. Examples of analysis.

Almost all the cases are promoted by no-profit organizations, with the exception of #365Pugliadays created by private company, with the inclusion of a wide community of stakeholders as the regional agency for tourist promotion (Pugliapromozione), the Italian Touring Club (in the case of #Appiedi), the Laboratory of Management Engineering at the University of Salento, other agencies and association. The involvement of strategic actors has produced positive results in terms of organization of the digital campaign, visibility and follow-ups.

Each initiative has been labelled with official specific hashtags. With the exception of #carnevaledi putignano2016, in all cases, a nucleus of storytellers involved. In some of the event

analyzed, those storytellers present the profile of top influencers (#mygarganoexperience, #365pugliadays), in some other the official tellers are voluntarily involved on the basis of their cultural backgrounds (#appiedi), in other tellers were hired by the promoters of the event to assure the continuous updating of digital experience offered (#365PugliaDays).

About the social performances observed: all the events have registered an hype in the days of the programs; the type of social track more appreciated was represented by post or tweet associated to photos; the audience in terms of nationality was conditioned by the idiom used for the hashtag and promotional strategy (this has implied a coverage of the Italian market in all the cases, although in some of them there have been foreign users); Instagram is in absolute the social network more used (only in the case of #365pugliadays, Twitter is the more influent); in almost the cases, the difference of gender between users is very low; the tagclouds (preliminary result of a semantic analysis of the experiences in terms of more frequently used words) suggest the importance of creating conjoint initiative of promotion and offering by leveraging on different assets and attractiveness of the regional destination.

In the table that follows, the main evidences collected for, from and about each digital local experience are synthetized in terms of social analytics metrics (reach, impression, number of posts or tweets, comments, etc), n. of storytellers (if presented), official social accounts, geographic area of coverage, profile of audience (gender, age, country, etc), type of post more appreciated, tag cloud.

	#appiedi	#mygarganoexperience	#365PugliaDays	#carnevalediputignano2016
Reach	n/a	2.900.000	114.165	n/a
Impressions	n/a	15.100.000	266.900	8.500.000
Nr. Of Post, Comments and replies on Facebook	148	148	1.018	264
Tot. Nr. Of Tweets	29	1131	28	1.145
Tot. Nr. of Posts and Comments on Instagram	3.273	4.749	1.210	263
Social Network more influent	Instagram	Instagram	Instagram	Twitter
Geographic coverage	Italy	Italy, UK, Russia, Brasil	Italy, USA.	Italy
Gender %	51% Male 49% Female	1st Week-end: 35% Female, 65%Male 2nd Week-end: 24% Female, 76%Male 3rd Week-end: 40%Female, 60% Male	49% Male, 51% Female	n/a
Main Types of devices	Android, Iphone	Iphone, Android	Android, Desktop	n/a

used				
Type of post more appreciated	link and photo	photo	photo	photo
Tag Cloud	belli, fortunato, ospitalità, viaggio, trasnsiberiana, emozionati, giovanni, letterario	stupenda, galgargano, igerspuglia magnifica, scoperta, weareinpuglia, puglia, polpetta.	apulia, incredibile, weareinpuglia,spettacolo,michelegregucci, apulismartourism,l'ulivo	viaggiovero, viaggiaredasoli, tbnetaalks,pasqua, springs,spiaggia, vedere, consigli.

Table 2. *Digital Local Experience at the glance*

DISCUSSIONS AND IMPLICATIONS

The analysis of social Big Data generated by the digital local experience in the Apulia destination, offers interesting evidences for the goals of the study. The need of competing at global level with a more and more sophisticated demand of services and products highlights the emergence of areas of improvement as well as the space for creating Knowledge-intensive Entrepreneurial ventures.

This is due to nature of technologies at the basis of the trends in tourism, at the technological and managerial challenges associated to Big Data as well as to nature of tourism as regional sector largely interested by the pervasive adoption of the ICTs.

The analysis of digital local experiences performed in our study has allowed to derive first important elements of development of the destination in a smart perspective. But they need to be consolidated and deepened, in order to overcome the risks that they remain limited to communicational initiatives without sustainability. It is important to overcome the isolation of the events and to transform data created for, from and about the digital experiences into valuable assets for companies and territories.

The differentiated set of digital experiences identified demonstrate the potentiality of the destination and the several paths of development at which Apulia region can look. In the meantime, the follow-ups of the monitored events, also in the circumstances of long and consolidated experiences (#carnevalediputignano2016) do not present evidences of concrete entrepreneurial spillovers.

With the right approach, all they can represent sources of large insights about consumers' preferences and elements for qualifying and innovate the tourist offering. They also can be used as tools to build connections with individual tourists, to co-create personalized packages. All this solicits the need of innovative capacities of analysis and interpretation. Without the right information and a very good targeting approach, also the best social advertisement will not produce economic and financial results. Tourism is such a fast-paced industry, which really drives the need for speedy data analytics and quick decisions. In tourism, any demands need to be addressed instantly in order to still be relevant for travelers, which makes Big Data so important.

Framed in the above premises, some of Knowledge-intensive Entrepreneurial opportunities can be identified by matching Big Data with the current profile of Apulia destination. Preliminary, those opportunities can be identified into innovative services and products suitable to:

- *Make more effective the decision making process* of private companies, public agencies and associations. All those might benefit from the increased speed of Big Data processing offered by new technologies. Innovate the single offering and the whole experiential packages of products and service: Big Data might be used to co-create personalized products and services for tourists.
- *Reinforce the customer relationships*: overcoming the fragmentation of data available on customers the aggregation and filtering of data should create better customer relationships, and more revenue from customers from better-targeted products and services. Through predictive analytics, the most-favored destinations, lodging and dining preferences, ancillary service needs, and tourism experiences can be identified for each passenger. Online analytical services such as price prediction and desirability rankings can increase the likelihood of purchase.
- *Identify new market niches* by capturing and processing data available online, mainly on social networks, Big Data can allow to identify unsatisfied demands and profitable areas of serving.

The opportunities discussed are representative of processes of improvement for existing companies operating in tourism, but they could be assumed as a valuable source of opportunities for creating new entrepreneurial ventures by innovative entrepreneurs. Those promising entrepreneurial areas of development could be configurable into consulting strategic services of different types (related to the communication, branding, targeting, etc) customization of proprietary and open sources technologies for Big Data processing, training of employees and top manager.

CONCLUSIONS

Aimed to discuss how the exploitation of Big Data can represent a large base of opportunities for the creation of knowledge intensive entrepreneurial processes to sustain the smart growth of a tourist destination, the paper has focused on the Apulia, a Southern Italian region and destination of growing popularity and attractiveness.

The analysis performed has allowed to identify emerging areas of entrepreneurial opportunities, in terms of more effective decision making, reinforcement of customers relationships, identifying new market niches.

Elements of value can be identified into the tentative of putting together in an analytical frame different interdisciplinary theoretical frameworks to analyze the phenomenon, such as Big Data,

Knowledge-intensive Entrepreneurship and Smart Tourism Destination. Specifically, in contributing to the recent debate on Big Data through the lens of the Knowledge-intensive Entrepreneurship, together with the insights and suggestions coming from the social media analytics this is a further element of value of the research. Finally, the study has offered a wide large set of implications and insights for the agenda of regional development. The opportunity of Big Data for the intelligent growth of Apulia destination requires the need of removing obstacles and barriers to adoption of technologies available as well as to transform the entrepreneurial culture and policies of actors, public and private, interested in tourism.

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THEORETICAL MODEL: PERFORMANCE OF NEW TECHNOLOGICAL PRODUCTS

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ABSTRACT

The purpose of this article is to present a critical and holistic literature review of the background of new product performance over the years. After the survey, it exposes the model with the seven key elements that professionals and companies holding new products must take into account in the definition of their strategy and that will have direct implications in the performance of these products. It exposes six elements: strategic decisions, tactical decisions, market orientation, knowledge management, launch strategy and personal characteristics. The confrontation of several literature perspectives also points to a seventh element, which corresponds to the company's resource structure, suggested by Hsieh et al. (2006) in their previous study of a successful launch strategy, so it will be relevant to demystify their consequent influence on the performance of the new product. In parallel, it provides a table with the relevant tactical variables for high-technology products, which integrates not only the known 4-p's, the element of assistance and information support to the client, which is considered to have increased importance in this context and therefore should be included in the tactical decision making. Furthermore, an analysis of the high technology marketing environment that involves innovation and the development of new products, with particular interest in clarifying the critical and unique components such as competitive volatility, technological uncertainty and market uncertainty, interpreting an elucidating guide to managers' decision-making, reducing the risk of failure in introducing new products.

Keywords: technological products; performance of new products; high technology marketing

INTRODUCTION

Innovation is constituted by the introduction of new products or new processes and it represents an essential framework for economic growth (Romer, 1990; Solow, 1956).

Several studies indicate that the higher percentage of profits of companies, mainly those that commercialize products of high technology comes from recent products. In this sense, Loch et al. (1996) refer that in the electronics sector 90% of revenue comes from products under 5 years.

To mitigate the growing complexity of the marketing environment that surrounds innovation and parallel technology across all sectors of activity, this research will focus on the study of the launch and background of new technology products.

Therefore, in the first place will be the study of the marketing-mix of high technology products and their role in defining the strategy of launching new products (Talke and Hultink, 2010). It is the presentation of the elements to be contemplated in the product launch decisions, which over time have been reiterated in the literature, which distinguishes two groups, the strategic launch decisions and the tactical launch decisions (Guiltinan, 1999; Hultink et al., 1997b). Alongside this, different views of strategies related to the performance of new products will be compared and taken into account by all the professionals involved in the launching of new products. This section congregates on the presentation of the critical elements that precede the performance of new products and with particular relevance in the design of concrete guidelines for professionals in this area.

In order to respond to the constant variation of the needs of the consumers, innovation seems to be the key and assumes various typologies. However, in this study we will consider only the radical innovation that refers to totally new products that transpose a remarkable change in basic technology, these are innovative ideas that can open the doors to new markets (Mohr et al. 2010).

It so happens that the characterization of the environment of marketing of high technology and its singularities occur and incite to a readaptation of the launching. Thus, the high technology products, their particularities, forms of communication, message and the target audience are addressed.

Therefore, the research provides to the professionals in launching new technological products, a tool with a practical, useful and extensible application in the current marketing environment so that they can have a solid decision making and with a positive impact in the performance of the product, materialized by the model introduced here.

MARKETING-MIX OF TECHNOLOGICAL PRODUCTS

The marketing-mix concept was introduced by Borden (1964). The American Marketing Association (2017) defines this concept as a set of controllable marketing variables, that integrate the well-known 4 P's (product, price, place and promotion) proposed by McCarthy (1964) and which the company uses to achieve the goal of sales ambition in the target market. Patil (2017) adds that the marketing-mix is a support tool, indispensable in the process of understanding and preparing the real product offer.

The concept described here is part of the leading conceptual reality (Londhe, 2014), which over time has undergone consecutive changes associated with the growing market dynamism apparent in the inclusion of variables and consecutively, adjusted with improvements or mutations. Thus, the intellectuals Dovleac and Bălăşescu (2012) argue that the marketing-mix of high technology products

beyond the traditional four P's should include the fifth element: assistance and information support for customers.

Table 1 shows the five elements of the marketing-mix to be taken into account, when it comes to a high technology product, and described in the previous paragraphs.

Table 1- Categorization

Categories	Subcategories	Literature/Authors
Marketing-mix of high-tech products	Product	Borden (1964) McCarthy (1964) AMA (2017)
	Price	Borden (1964) McCarthy (1964)
	Place	Borden (1964) McCarthy (1964)
	Promotion	Borden (1964) McCarthy (1964)
	Service and support of customer information	Dovleac and Bălăşescu (2012)

Source: Self-elaboration

To sum up, the marketing-mix is an essential marketing tool and plays an important role in allocating available resources to the various marketing-mix elements that ensure competitiveness (Londhe, 2014).

Following this, there will be a section regarding the launching of the product itself.

PRODUCT LAUNCH

The product launch phase is faced by Gans et al. (2003) as it often corresponds to the first moment in which the company clarifies its strategy and positioning, as well as being referred to by several authors as a critic for increasing the competitiveness of companies (Chiu et al., 2006; Zhang and Guan, 2017) and of greater importance for innovative companies (Talke and O'Connor 2011).

Although of all the stages of the development process, the launching of new products is the most expensive in most cases (Beard and Easingwood, 1996; Di Benedetto, 1999; Guiltinan, 1999; Hultink et al., 1997b), it provides a greater contribution to the success of the new product (Di Benedetto, 1999; Guiltinan, 1999; Hultink et al., 1997a).

In this sense, the literature of the development of the new product distinguishes two main groups of launching decisions (Guiltinan, 1999; Hultink et al., 1997b). In first place, the strategic launch decisions, made in the beginning of the new product development project, bring together the product strategy, the market strategy, the competitive strategy, and the company strategy. In second place, it is said that the tactical decisions of launching naturally follow those of a strategic nature that often influence them,

which is related to the elements of the marketing-mix which are easily changed after the process of developing new products (Hultink et al., 1997b).

Therefore, any consistent product launch should contemplate strategic and tactical launch decisions mutually (Narvo, 2017).

BACKGROUND OF THE NEW PRODUCT PERFORMANCE

Different authors analyse several elements that affect the performance of the innovation and so are precedents of the success of the new product launching (Cooper et al., 1994; Hultink and Robben, 1995; Ingenbleek et al., 2010).

Hultink and Robben (1995) argue that there is a direct effect of the company scope and the personal characteristics on strategic and tactical launch decisions, which in turn impact the success of the new product. In addition, the entry strategy implemented has an impact on the launch, even though it is less pronounced, according to the same authors.

According to Di Benedetto (1999) the strategic decisions are those that have the greatest contribution to success in the launching of new products. Among the several, the role of multifunctional teams in the marketing and production decision making was highlighted, as well as the logistic functions in the planning of the entire process of developing the new product. The author added that the increased focus on the company, the competition and the customers at the time of the launch are factors of increased importance in the success of the launch, as Calantone and Di Benedetto (2012) later points out. Although it was the stage of gathering information that brought particular emphasis to the successful launches.

From Ottum's (1996) perspective, the strategy that culminates with the desired product performance requires strong planning and well-defined segmentation and positioning objectives that clearly determine subsequent tactical actions. Whilst for Talke and Hultink (2010), the mind-set of the company influences the strategic decisions of launching, therefore it assumes particular importance in the performance. The structure of the company's resources is defended by Hsieh et al. (2006), whilst Hultink and Langerak (2002) propose the market orientation as decisive for the launch decisions adopted.

The authors Talke and Hultink (2010) have shown that launch decisions that relate to the marketing-mix elements affect the performance in the new product. On the other hand, Asterbo and Michela (2005) affirm that the success of the product is strongly related to the survival in the market.

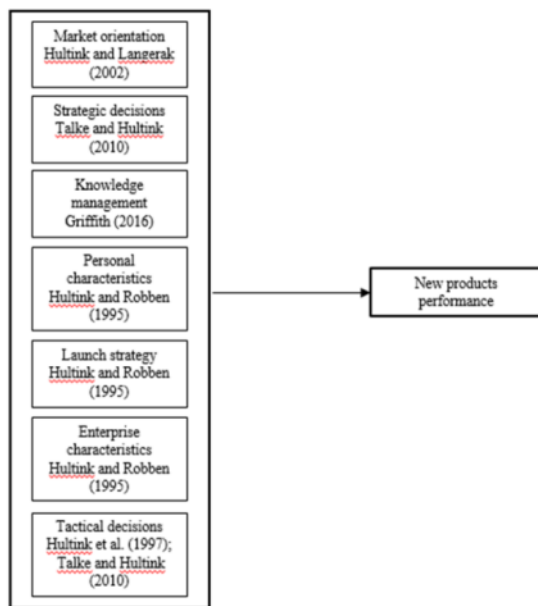
Furthermore, the literature points out that choosing the appropriate price improves significantly the effects of the launch performance on the product (Ingenbleek et al., 2013) especially when the products

are perceived as complex which derives from the incompatibility with consumer values and therefore with no relative advantage (Rogers, 1995).

The distribution, in turn, must be in line with the positioning of the product and adjust the channels to the characteristics of the target segment, which led Danaher and Dagger (2013) to propose a framework that assists in the choice of the channel that represents greater profits for each company.

Talke and O'Connor (2011) studied the types of information contained in the communication strategy that lead to the process of adopting new industrial products. They concluded that positive perceptions of the attributes of innovation constitute a central point in its adoption, as well as usability information and financial justifications. However, they have argued that the technicality of the message does not produce desirable effects on the market performance.

To resume, there is a extensiveness of antecedents that directly affect the performance of new products according to previous studies, so this research brought together this group of elements in the figure below, in order to provide to all professionals in the field of the launch of new products, a simple and intuitive epilogue of the variables to be taken into consideration by the entire organization when faced with this reality. The model presented by this study reiterates seven elements directly related to the performance of new products, and six of them corroborated by the literature, which are: strategic decisions, tactical decisions, market orientation, knowledge management, launch strategy and personal characteristics. The existence of yet a seventh element, resource structure of the company studied by Hsieh et al. (2006) which refers to its direct impact on the launch strategy, so it will most likely influence the performance of the new product. Therefore, the test and validation of this as a precedent of the performance of the new product has high relevance and therefore should be considered in later studies.

Figure 4- Background affecting the performance of new products

Source: Self-elaboration.

NEW PRODUCTS

According to Hultink et al. (1997b) the products differ in the degree of novelty. Later Guiltinan (1999) found that this circumstance has different impacts from the launch process in demand.

According to Micheal et al. (2003), the new products present a distinct configuration considering the level of novelty that characterizes them. Thus, they refer to two distinct groups: new products for the company and no novelty for the market and products that constitute adjustments for the company and therefore are not new to the market. On the other hand, the study by Haji and Assadi (2009) distinguishes truly new products from partially new products.

In this context, the research results of Zhang and Guan (2017) highlight the classification of the products as an important step and with a positive impact on the company's profitability.

HIGH TECHNOLOGY MARKETING

Nystrom (1990) defends that high technology marketing should leverage a future vision that the market is aware to the detriment of a particular product.

The high technology market is characterized by a highly volatile environment and high levels of uncertainty, in which the technology and marketing strategy must be integrated and the marketing tactics, as well as technological vision, overlap with the company's strategy (Beard and Easingwood, 1996). In addition to this, the complexity of high technology marketing dictates the importance of

fostering improved marketing actions, even though frequent lack of essential marketing knowledge, lack of support and of resources compromise the effectiveness of the marketing activity (Dutta et al., 1999a).

On the other hand, speed is perceived as a key element in this environment, which results in the reduction of the time period between the development and product placement in the market, with improvements to the product being delayed during the marketing process (Bahrami and Evans, 1989). Gilbert and Strebel (1989) reiterate this last aspect, affirming as being crucial to the success of these type of products, the adaptation of the marketing-mix throughout its commercialization.

For Gupta et al. (1986), the level of innovation of the company is as high as the integration of marketing in the research and development of innovation, as well as the uncertainty of the market. The innovation lies in a strategy based on broad sources of information, established on the market, for customers and non-customers, in the industry and technology sector, according to Drucker (1999) represent particular emphasis on the change that arises in the external environment of the company. Moreover, the most recent active involvement of clients in the creation and development of innovation, so-called co-creation corresponds to an external perspective generating innovative ideas (Mohr & Sarin 2009).

Hence, innovation and market orientation are particularly relevant in the context of high technology marketing (Mohr and Sarin, 2009).

HIGH TECHNOLOGY PRODUCTS

Beard and Easingwood (1996) claim that when it comes to a new technology, segmentation is a critical element. The attention should be directed to the innovators segment, who are more receptive to technology and influence the implementation of the rest. Therefore, it requires that there be market education, with the disclosure of the existence and benefits of the technology, the subsequent adoption is expected.

With the same logic, the authors Easingwood and Harrington (2002) presented four steps involved in the launch of high technology products. The first one concerns the preparation of the market, the second concerns the segmentation of the market, the third one coincides with the launch itself and the last one takes place after the product launches.

Following this are several authors, including Zhang and Guan (2017), who restate the critical role of customer relationship strategies in launching new products, that is, leading marketing efforts across

different market segments. For this, there are several segmentation methods that have emerged over the years as the 20/80 rule and the RFM model based on the following criteria: recency, frequency and monetary value (Ekinici et al., 2014; Hughes, 1994).

In this field, Nienaber and Schewe (2014) evaluated the role of trust and perceived risk in the launch of a product, and validated the strong positive effect of trust in the commitment of the relationship due to the intensity of contact. That is, the contribution has resulted in the premise that management must rely on trust to ensure the commitment of the relationship, in detriment of perceived risk reduction.

DISCUSSION

Mohr et al. (2009) attribute three particularities to the high-technology marketing environment, which is interlinked with each other, specifically, market uncertainty, competitive volatility and the technological uncertainty. In this sense, we are facing a challenging environment for the introduction of new products, although it is of additional importance for each innovative company and in specific for the clear determination of its competitive position (Talke and O'Connor, 2011; Zhang and Guan, 2017).

In this sense, the adaptation of the marketing-mix throughout the commercialization (Gilbert and Strebel, 1989), dictates the success of the high technology products. In addition, each innovation requires segmentation (Ottum, 1996; Beard and Easingwood, 1996), which includes a systematic process to foster the adoption, which concerns awareness. In parallel, building the customer relationship (Zhang and Guan, 2017) is a critical factor in launching innovations. When it comes to a radical innovation, the suppliers play a key role in boosting the adoption. Also emphasize the importance of internal characteristics of the company in adoption.

It is concluded after analysing several positions that the market innovation and orientation are particularly relevant in the context of high technology marketing (Mohr and Sarin, 2009). Given that the degree of innovation varies over time, the understanding and adoption of innovation is its consequence.

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

The confrontation of the various positions related to the marketing-mix concept confirms the extreme functionality of its application by marketing professionals, enhancing the company's competitiveness.

However, it should be noted that in the case of high technology products, the variable assistance and information support for the client, as advocated by Dovleac and Bălăşescu (2012), is added to the four P's (McCarthy, 1964). The latter translates the relevance of analysing and deepening the needs and capacities of the user is greater compared to other types of innovations (Drucker, 1985), since the innovation is knowledge centred. In this sense, technological superiority together with improved marketing are regulating conditions to success in the high technology markets (Baker and Sinkula, 2005; Dutta et al., 1999a).

In Guiltinan's (1999) perspective, the tactical variables of the product clarify their relative advantages and improve the compatibility for the target segment taking into account their needs and perceptions. This way, the marketing-mix must be aligned in accordance with the defined strategy, in order to convey a coherent brand image at the launching (Calantone and Di Benedetto, 2012).

After analysing and comparing the proposed positions by the literature in the product launch field, seven factors were identified that were directly related to the success of the new product, namely: market orientation, knowledge management, launch strategy, company characteristics, personal characteristics, strategic decisions and tactical decisions. The author Hsieh et al (2006) also points out to the structure of the company's resources as an element that has an impact on the new product strategy and with an interest in later evaluating its impact on the performance of the new product.

In this context, a conceptual model emerges that clearly portrays the key elements that affect the performance of the new product, as stated by academics in this area of knowledge. However, the contribution explained here needs to be tested and empirically validated by companies and professionals who are directly involved in the launch of new technological products. Therefore, future studies will focus on the practical validation of the theoretical model suggested here, which will have an extremely important contribution in improving the rate of failure in launching new products and in the definition of marketing efforts, providing a credible and flexible basis to the daily reality of companies and professionals. It is recommended that the model validation is accompanied by a market survey to which it will apply as it is adjusted and adapted as best as possible to the reality, and henceforth a useful and simple tool to be applied by anyone in charge of the launch of new products, regardless of whether or not the training is marketing.

Finally, it is proposed that the test and validation be carried out, in the specific case of high technology products. This is a reality that has been increased by innovative companies, where as far as we know, there is no guidebook to provide valid guidelines for what directly affects the performance of these type of products, and therefore has a relevant applicability.

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HOW LOCALISATION AFFECTS FIRM PRODUCTIVITY IN TURKEY? ¹

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ABSTRACT

In this paper we explore how firms' productivity is affected by spatial features such as agglomeration of firms, clustering of innovation and localisation of FDI in Turkey. We also control for the impact of firm characteristics on firm productivity (specifically the role of size, ownership and firm innovation). The firm's absorptive capacity is taken into account by interacting the main variables of agglomeration and innovation at region-sector level with size and technology level of the firm. We use an unbalanced panel for 2006-2013 based on national data at firm level. Our analysis builds upon similar specifications of panel estimates for output by GMM system methodology to address simultaneity and endogeneity between agglomeration and productivity. Overall, the estimation results suggest some robust findings: there are significant productivity enhancing agglomeration effects, in particular there are significant spillovers between firms operating in the same sector and region, spillovers from innovation at local level are also strong, and a higher output of foreign firms produce positive spillovers on productivity in the province. However, spillovers are specific to technologically more sophisticated firms.

Keywords Multifactor Productivity; Size and Spatial Distributions of Regional Economic Activity; Innovation; Multinational firms.

1. INTRODUCTION

The aim of the proposed study is to investigate how firms' productivity in Turkey is affected at spatial level by agglomeration of firms, clustering of innovation and localisation of FDI. The choice of Turkey is based on the relevance that economies of agglomeration play in this economy. Turkey is a very interesting case study also due to the emerging role over the last decade of science parks, innovation

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clusters, incubators, and by an increasing presence of foreign multinational corporations. Besides, Turkey is among the countries of the South Mediterranean region most integrated into the global manufacturing markets, with a strong human capital base, a large number of engineers and skilled workers. However, the country is also marked by a very high regional unemployment and strong provincial inequalities. The regional inequality in Turkey has become more persistent after the 1980 liberalization. Filiztekin (1998), Dogruel and Dogruel (2003), Karaca (2004), Gezici and Hewings (2007), Yıldırım and Öcal (2006), Kılıçaslan and Özdoğan (2007), and Filiztekin and Çelik (2010) all focus on the way regional income gaps evolved concluding that even though there are small signs of convergence, they are far from successful and the east-west duality is an ongoing problem to the Turkish economy.

Given this background, several questions are worth being investigated. Do firms localised in clusters of production exhibit a higher productivity? How far concentration of innovation of firms in the same cluster is likely to increase productivity? How far concentration of foreign multinationals in such clusters has a stronger productivity spillover? How firms are able to benefit from spillovers and enjoy agglomeration effects depending on their size, technology and ownership? Is there a different firms' absorptive capacity? Hence, we interact the main variables of agglomeration and innovation at region-sector level with firm size (measured by the number of employees) and with innovation investment. These interaction variables reveal whether large firms and innovation performers benefit more from agglomeration effects and spillovers.

Our analysis aims to provide a measure of spillovers on productivity from geographical and sectorial clustering of firms and from their innovation. To this purpose, we build specific indices of agglomeration and innovation activity at territorial level. We also use indicators of innovation performed by domestic and by foreign multinationals at the spatial level of analysis adopted.

The specific additional insights of this analysis are the focus on agglomeration economies and innovation spillovers taking into account a multidimensional approach, both at spatial and firm level, in the effort to catch at the same time regional characteristics of the economic systems and firm heterogeneity. The analysis at firm level is crucial to detect agglomeration economies as some factors are firm-specific and driven by factors related to the individual skills of owners, workers and managers, to different sizes, specific approaches to production and different innovation strategies (Bloom and Van Reenen, 2010). Hence, we control for the impact of firm characteristics (specifically the role of size, ownership and firm innovation). Furthermore, we also check whether the regional endowment of territories where firms are located and in particular their R&D and location of foreign multinationals exert a positive effect on firms' productivity.

The research, by focusing on the agglomeration economies in the local context within which firms operate, and at the same time concentrating on firm-specific determinants of productivity, fills a gap in the literature. There is an almost complete lack of studies addressing such issues for Turkey at micro level: most of the studies are carried out at industry level (Coulibaly et al., 2007; Önder et al., 2003; Öztürk and Kılıç, 2015) or at province level (Çetin and Kalayci, 2016).

We adopt panel estimates of output by GMM system methodology controlling for time fixed effects. Using system GMM dynamic panel estimation techniques we try to address simultaneity and endogeneity on inputs and also the possible endogeneity between agglomeration and productivity. We use an unbalanced panel data including all private establishments employing 25 or more people for 2006-2013. Spatial unit of analyses are the provinces.

The following chapter is organised as follows. After a literature review of the main strands of analysis on spatial agglomeration, innovation and firm performance and on the specific studies carried out on localisation economies in Turkey on the topics of interest, we describe in section 3 the data and in section 4 some stylised facts on firm clustering, spatial innovation and productivity in Turkey, showing the features in terms of spatial concentration of firms, employment, FDI, innovation and relationships between these variables. Further, we develop the country specific analysis and describe our methodology (section 5) and our results (section 6) by considering the specific empirical model and the econometric specification carried out to catch regional innovation, productivity spillovers and productivity dynamics and differentials deriving from the geographical and sector clustering of firms, innovation spillovers and performances. Conclusions and policy implication follow.

We find support that in an open economy agglomeration leads to higher efficiency. In particular, our results confirm the outcome that firms in the same industry benefit more from each other as they are more technologically similar. Hence, the sector distance matters as this may facilitate the flow and absorption of knowledge among firms. We also found that FDI impact is positive albeit limited, the territorial and social redistribution depending on the firm level of technology¹ The technology play a critical role due to lower absorptive capacity of less technology sophisticated firms.

The results from the overall empirical analysis emphasises what are the policy recommendations in this context regarding promotion of agglomeration, localised innovation and foreign investment, which may support the structural transformation of the economy.

¹ This might also occur because firms opened to the foreign market are in general a subcontractor which don't have the autonomy to conduct neither technological nor non-technological innovation.

2. LITERATURE REVIEW

2.1. Spatial agglomeration, innovation and firm performance

Clustering of economic activities has been traditionally seen as a crucial mechanism for employment, firm growth and resilience. The clustering of industries in specific areas has improved industrial productivity in a number of countries. According to the Marshall theory, specialization economies increase the interaction between firms and workers, and speed up the process of innovation and growth, as firm agglomeration in the same sector produces positive externalities and facilitates the growth of all manufacturing units within it. These advantages are mainly based on information sharing and intra-industry communication. On the other hand, according to the Jacobs theory (1969), knowledge externalities are associated with the diversity of neighbour industries (urbanisation economies). Clustering can also be an important driver of R&D via a broad range of processes like learning-by doing, externalities on inputs, labour markets pooling and R&D cooperation between firms (Baltagi et al., 2012). Porter (1998) also emphasized cluster's significant role in a firm's ongoing ability to innovate and further enhance firm's productivity. Besides, an extensive literature shows that firms' behaviour depends on the spatial availability of territorial resources devoted to innovation and growth (Henderson et al., 2002).

The literature on agglomeration economies effects is extensive and dates back to a few seminal papers (Marshall, 1920; Glaeser et al. 1992; Porter, 1998; Jacobs, 1969; Audretsch and Feldman, 1996) which describe the positive effects related to technology transfers and to pro competitive forces (increased competition, reallocation of resources towards more productive firms, productivity improvements of incumbent firms).

The theory surrounding agglomeration economies and spillover effects mainly identifies two types of externalities: localization (or specialization) economies and diversification economies. The localization economies may rise from industry specialization available to the local firms within the same sector (the Marshall- Arrow-Romer or MAR externalities) and by the emergence of the intra-industry transmission of knowledge (Glaeser et al. 1992) as firms learn from other firms in the same industry (Porter 1998). These economies explain the development of industrial districts (ID). Unlike localization economies, however, Jacobs (1969) economies indicate that the diversity of industries and knowledge spillovers across geographically close industries promote innovation and growth via inter-industry knowledge spillovers (Acs et al., 2007). The latter reflects external economies passed to enterprises as a result of the large-scale operation of the agglomeration, independent of the industry structure. For instance, relatively more densely populated areas are more likely to house universities, industry research laboratories and other knowledge generating facilities.

It is recognized that clustering is especially important as a driver of R&D via a broad range of processes like learning-by doing, externalities on inputs, labour market and knowledge, R&D cooperation between firms (Rosenthal and Strange; 2001; Ellison et al., 2010; Baltagi et al., 2012). The theory on agglomeration economies also argues that positive knowledge spillovers are more likely to occur if firms are located in the same area, as geographical proximity encourages the diffusion of ideas and technology due to the concentration of customers and suppliers, labour market pooling, worker mobility, and informal contacts (Greenstone et al. 2010). Technology transfers (intra and inter industry knowledge spillovers) may occur via vertical linkages (along the supply chain and the creation of specialized suppliers) and horizontal linkages (collaboration among firms, imitation, concentration of customers and suppliers; labour market pooling and workers mobility; informal contacts).

The nexus between spatial agglomeration and knowledge spillovers has been largely investigated within the “geography of innovation” literature, which concentrates on measuring localized spillovers from R&D spending (Griliches, 1979; Breschi and Malerba, 2001; Bottazzi and Peri, 2003; Audretsch and Feldman, 2004). Within this literature, the private technology of individual firms spills over to other firms and becomes public knowledge increasing the productivity of all firms. Rosenthal and Strange (2001) and Ellison et al. (2010) consider the importance of input sharing, matching, and knowledge spillovers for manufacturing firms at various levels of geographic disaggregation, and other studies have found that knowledge spillovers tend to vanish rapidly as distance increases (Audretsch and Feldman, 1996; Keller, 2002). The concentration generates dynamic processes of knowledge creation, learning, innovation and knowledge transfer (diffusion and synergies). As a result, the cluster becomes a center of accumulated competence across a range of related industries and across various stages of production (De Propris and Driffield, 2006).

Another important strand of research related to these topics of analysis is the large literature which has focused on detecting spillovers from the presence of multinational enterprises, where horizontal and vertical spillovers can be inferred indirectly, though the estimation of their effects on firms’ total factor productivity. The location choice of foreign Multinational Enterprises (MNEs) as source of potential spillovers from FDI is stressed by a large amount of research through a range of different channels including the creation of forward and backward linkages, competitive and demonstration effects, transfer of skilled workforce, transfer of (pecuniary and non-pecuniary) externalities to local firms (Aitken and Harrison, 1999; Gorg and Greenaway, 2004; Haskel et al., 2002; Javorick, 2004, Ferragina, and Mazzotta, 2014). These spillover effects from MNEs, either intra- or inter-industry ones, are more likely to materialize when firms are geographically closer.

2. 2. Studies on localisation economies in Turkey

There is a limited number of studies on productivity for Turkish manufacturing. These generally focus on the relationships productivity and export, FDI, trade, or technical efficiency (see Aslanoğlu, 2000; Taymaz and Saatçi, 1997; Taymaz and Yılmaz, 2007; Lenger and Taymaz, 2007). FDI is found to be an important channel for transfer of technology and that the modern, advanced technologies introduced by multinational firms can diffuse to domestic firms through spillovers.

Taymaz and Saatçi (1997) is among the first attempt to identify the effects of regional agglomeration. They estimated stochastic production frontiers with efficiency effects and found that regional agglomeration of firms enhance technical efficiency.

Önder et al. (2003) analyzed spatial characteristics of TFP in Turkish manufacturing. They investigate technical efficiency, technical change and TFP changes by estimating a trans-log Cobb-Douglas production function employing stochastic frontier analysis (SFA) methodology using regions' share in production, population density and a specialization index based on the value added to represent regional characteristics. Their findings suggest that average firm size and regional characteristics are the main determinants of technical efficiency. They also indicate that firms operating with a larger scale are more efficient than small scale ones, and that industries located in metropolitan areas are more technically efficient than their peers in the peripheries.

Coulibaly et al. (2007) attempt to capture the relationship between productivity and agglomeration using two-digit Turkish manufacturing data for 1980-2000 period and several proxies such as accessibility, localization and urbanization. The estimation results suggest that both localization and urbanization economies, as well as market accessibility, are productivity-enhancing factors in Turkey.

Karacuka and Catik (2011) examine productivity spillovers from foreign and domestic companies based in Turkey and also report spillover effects from neighbouring companies. Quite different the Öztürk and Kılıç (2015) analysis of the link between productivity and agglomeration employing Ellison and Glaeser index and Total Factor Productivity to represent agglomeration economies and productivity levels in Turkish manufacturing industries on 1980-2001. Their results indicate that Turkish manufacturing industries stand as an example of negative externalities.

Çetin (2016) employs spatial econometric methods in analyzing intra and inter industry knowledge spillovers in industrial zones and concludes that there are spillover effects in the industrial zone of Ankara, and that more than half of the spillovers are due to geographical factors.

Çetin and Kalayci (2016), investigate the effects of R&D spillovers at province level also using spatial econometrics. The results of the analyses suggest the presence of R&D knowledge spillovers at provincial level in Turkey, shown by spatial spillover effects in nearly one third of the total effects.

Being literature only based on regional, industrial or provincial analyses the novelty we propose is the investigation at firm level of the impact of localisation economies on co-located firm performances based on the emphasis on the complementarity between the micro and the macro dimension.

3. DATA DESCRIPTION

We use an unbalanced panel data of all enterprises¹ that either employ at least 20 people or have at least 3 local units during the 2006-2013. Spatial unit of analysis is the “region” defined at the NUTS 2 level (a typical NUTS 2 region covers 3-4 provinces). The data source is the Turkish Statistics Institute (TurkStat) Longitudinal Database. The database is unbalanced because of exit from and entry into the industry and/or the database.

Table 1 contains the number of all firms, domestic firms and foreign firms² from 2003 to 2013 and the share and the number of R&D performers among all these three groups. Foreign firms are more likely to conduct R&D. About 4-5% of domestic firms perform R&D whereas about 18-19% of foreign firms perform R&D. However, there is a decline in the share of domestic R&D performers after the 2009 crisis in spite of an increase in the number of firms doing R&D.

Table 1. Number of firms in Turkey sample

	Number of firms			Share of R&D performers		
	All	Domestic	Foreign	All	Domestic	Foreign
2003	13936	13499	437	3.4	2.9	18.1
2004	16869	16318	551	3.1	2.7	15.1
2005	20060	19442	618	3.8	3.4	17.6
2006	21215	20428	787	3.3	2.9	14.9
2007	20556	19780	776	4.0	3.4	17.3
2008	22533	21772	761	4.2	3.7	17.5
2009	19526	18812	714	5.4	4.9	18.2
2010	23735	22896	839	5.4	5.0	16.9
2011	28657	27691	966	4.9	4.5	17.5
2012	30867	29927	940	5.0	4.5	19.3
2013	33630	32634	996	4.5	4.1	18.5

Table 2 shows the share of foreign firms in total number of firms, employment and value added, and their relative size and labor productivity. The share of foreign firms both as number and as employment and value added decreased after the 2009 crisis mainly because of the increase in the number of domestic firms (entry rate for domestic firms is higher than for foreign firms after 2009). Foreign firms are about 4 times larger than domestic firms (in terms of the number of employees per firm) and 2 times more productive (in terms of value added per employee). However, the sectoral distribution highly explains this asymmetry.

¹ We use the terms “firm” and “enterprise” interchangeably.

² A firm is “foreign” if at least 10% of its shares is held by foreign agents. Note that the most of the foreign firms are majority owned, i.e., foreign agents own more than 50% of shares.

Table 2. Share of foreign firms, 2003-2013

	# of firms %	Employment %	Value added %	Relative size	Relative labor productivity
2003	3.1	11.7	24.1	3.7	2.1
2004	3.3	12.0	25.8	3.7	2.2
2005	3.1	11.2	24.1	3.6	2.2
2006	3.7	13.4	28.6	3.6	2.1
2007	3.8	13.5	28.5	3.6	2.1
2008	3.4	13.1	25.9	3.9	2.0
2009	3.7	13.1	27.0	3.6	2.1
2010	3.5	11.7	23.8	3.3	2.0
2011	3.4	12.2	23.4	3.6	1.9
2012	3.0	11.6	23.0	3.8	2.0
2013	3.0	11.1	22.2	3.8	2.0

In table 3, where the sectoral distribution of foreign firms is described for the 2011-2013 average, it appears that foreign firms have larger shares in Tobacco products, Chemicals, Pharmaceuticals and Motor vehicles. Foreign firms are two to five times larger, on average, than domestic firms. Foreign firms' labor productivity is almost equal to that of domestic firms in pharmaceuticals, basic metals, computers, and other transportation equipment industries. The productivity differential (the productivity of foreign firms relative to the productivity of domestic firms) is higher than two in non-metallic mineral and fabricated metal industries. There is a weak positive correlation between relative size and productivity of foreign firms across industries, i.e., productivity differential between domestic and foreign firms is explained partly by differences in firm size.

Table 3. Sectoral distribution of foreign firms, 2011-2013 average

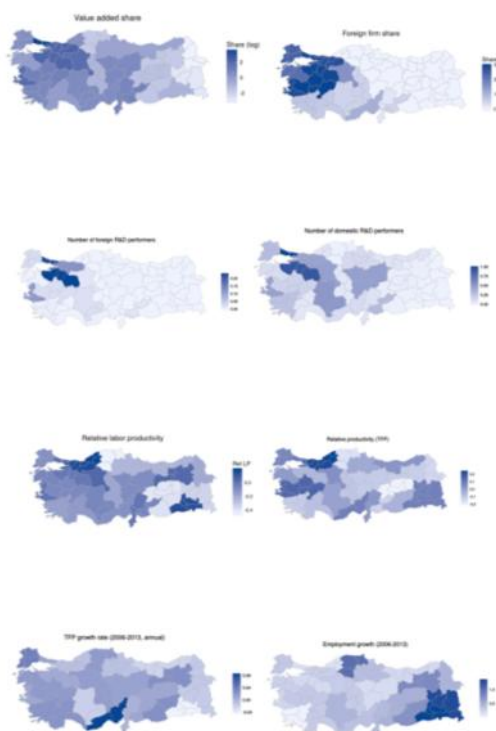
		Firms %	Employment %	Value added %	Relative size	Relative labor productivity
10	Food	3.34	12.35	20.35	3.70	1.65
11	Beverages	6.57	30.86	48.98	4.70	1.59
12	Tobacco products	34.21	59.54	99.49	1.74	1.67
13	Textiles	1.77	3.02	3.62	1.71	1.20
14	Wearing apparel	0.85	4.36	7.82	5.13	1.79
15	Leather products	0.78	1.76	1.98	2.24	1.13
16	Wood products					
17	Paper products	5.69	15.13	23.52	2.66	1.55
18	Printing					
19	Coke and refined pet					
20	Chemicals	12.47	24.22	33.76	1.94	1.39
21	Pharmaceuticals	19.05	37.46	43.08	1.97	1.15
22	Rubber and plastics	4.08	13.41	25.94	3.29	1.93
23	Non-metallic mineral	2.31	8.39	22.22	3.63	2.65
24	Basic metals	3.16	10.09	10.49	3.19	1.04

25	Fabricated metal	2.65	6.69	14.32	2.52	2.14
26	Computers, electronics	5.65	17.73	15.89	3.14	0.90
27	Electrical equipment	4.97	17.39	28.34	3.50	1.63
28	Machinery	3.54	15.91	30.25	4.49	1.90
29	Motor vehicles	11.53	47.90	64.38	4.16	1.34
	Other transport equipment	6.95	14.16	15.45	2.04	1.09
31	Furniture	0.76	1.83	3.32	2.42	1.81
32	Other manufacturing	3.62	9.51	17.60	2.62	1.85
33	Repair and installation	2.93	4.23	8.44	1.44	1.99
Total		3.12	11.61	22.80	3.73	1.96

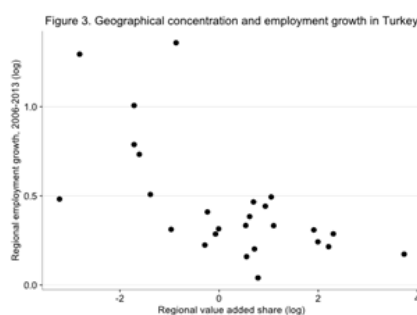
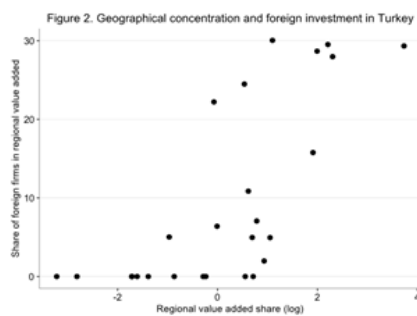
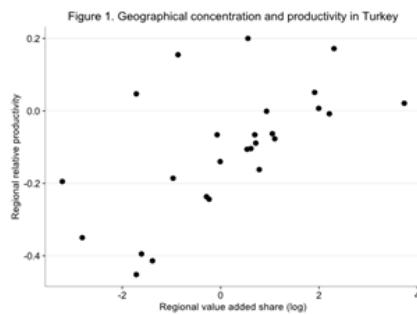
4. STYLISTED FACTS ON FIRM CLUSTERING, SPATIAL PRODUCTIVITY, AND INNOVATION IN TURKEY

We provide a preliminary descriptive part as a background for our econometric analysis. We illustrate the pattern of clustering using maps that exploit information on the exact location of firms (also considering foreign firms location). They picture at province level the concentration of value added, the foreign firms shares, the relative labour and TFP productivity, suggesting a high firm clustering and the unique nature of Turkish economy in terms of strong regional imbalances.. The number of foreign and domestic R&D performers give us a hint on spatial innovation spillover.

Maps 1-8



Furthermore, figures 1-3 help investigating in a preliminary unconditional way the benefits of regional agglomeration using the correlations between some of the variables mapped above. TFP growth and employment growth maps give us a preview of the potential benefits of clustering. In particular, fig. 1 shows the positive correlation between regional agglomeration (log regional share of value added) and regional relative productivity. The picture suggests that more concentrated regions are more productive. In fig. 2 regional agglomeration (log regional share of value added) is instead put in correlation with employment growth: here quite surprisingly more developed regions achieve lower employment growth from 2006-7 to 2011-12. This could be explained mainly with the less developed regions have higher population growth but it could also be due to the fact that concentration enhances productivity but not employment. In fig. 3 regional agglomeration is compared with the share of foreign firms in regional output: it appears evident that more concentrated regions attract more foreign firms.



5. EMPIRICAL METHODOLOGY: GEOGRAPHICAL AND SECTORIAL CLUSTERING OF FIRMS, INNOVATION SPILLOVERS AND PRODUCTIVITY

The issue we want to analyse is the relationship between agglomeration, innovation and firms' productivity. This entails considering proximity between firms, agglomeration indicators and R&D spillovers. The questions are: do firms localised in clusters of production exhibit higher productivity? Is there a complementarity between domestic and foreign firms? Firms should benefit from the experience of other firms in the vicinity, especially from the one of large foreign multinational firms. So we ask how localisation of firms nearby multinationals operating in the same localised cluster would contribute to develop their productivity and would allow innovation to circulate. Besides, we investigate how far concentration of innovation of co-located firms in the same cluster is able to increase productivity.

In addition to considering innovation measures at firm level, we build specific indexes of innovation activity at territorial level (provinces). We also use indicators of innovation performed by domestic and by foreign multinationals at the spatial level of analysis adopted.

We directly contribute to the wide literature on productivity spillovers from agglomeration economies, as well as to the literature on localized knowledge spillovers from innovation checking for spillovers between firms taking place within regions and controlling for regional features being more conducive to productivity growth. In order to distinguish between the two effects we have used a proxy for regional attractiveness, i.e. the value added per head. This controls for initial regional factors. We also include time dummies.¹

We use panel estimates for output (by GMM-system), controlling for time fixed effects. Simultaneity and endogeneity is hence addressed using system Generalized Method of Moments (GMM) dynamic panel estimation techniques. This methodology allows us to distinguish the direction of the nexus clustering and productivity and to focus on whether more regional clustering lead to higher productivity, ruling out the other direction of causality, i.e. that higher productivity leads to more regional clustering.

We consider different externality transmission channels, and which variable available in the data might best capture that. The first most important channel is to catch the spillovers between firms in the same industry (horizontal spillovers). Three variables are adopted to this purpose: the regional share variables by sector, i.e. the output share of the region in the sectors output, the number of firms by sector-region and the output of firms by sector-region.

¹ However, we do not include regional dummies as controlling on average across the years for regional fixed effects might absorb some of the regional and sector externalities we are trying to estimate.

Then, we look at the R&D/innovation performed by domestic and by foreign firms which can be considered as an innovation spillover channel. The share of output of R&D performing domestic and foreign firms in the region/sector and the number of R&D performing domestic and foreign firms in the region/sector are the two proxies considered.

The third important issue is related to the presence of spillovers by foreign firms. We consider to this purpose the shares of foreign firms in the region and in the sector.

As not all firms are able to benefit from spillovers and enjoy agglomeration effects it is important to also control for the role of firms' absorptive capacity. Hence, we interact agglomeration and spillover variables with firm size (measured by the number of employees) and with innovation variables. These interaction variables will reveal if large firms and innovation performers benefit more from agglomeration effects and spillovers. For example, if large firms benefit more, the coefficient of firm size-agglomeration effect interaction variable will be positive.

5.1. Model and descriptive statistics

In order to test the effects of agglomeration economies and spillovers, a Cobb-Douglas production function is estimated:

$$q_{i,t} = \alpha_i + \alpha_{Lq}q_{i,t-1} + \alpha_{Kq}K_{i,t} + \alpha_{LK}K_{i,t-1} + \alpha_{LL}L_{i,t} + \alpha_{LL}L_{i,t-1} + \alpha_M M_{i,t} + \alpha_{LM}M_{i,t-1} + D_i + \sum \beta_j X_{ij,t} + e_{it} \quad [1]$$

where q is real output, K capital, L labor, M inputs, D time dummies, and e the error term. Subscripts i and t denote firm and time, respectively. α_i 's accounts for unobserved, time-invariant firm-specific effects. X is a vector of variables that explain total factor productivity, and it includes the variables that measure agglomeration effects and spillovers.

The *output variable* of the production function is the value of production (sales adjusted by changes in final product inventories). It is deflated by sectoral prices indices at NACE 4-digit level to find real output.

Inputs of the production function are capital, labor and inputs (raw materials, parts and components). Capital is measured by depreciation allowances, labor by the average number of employees, and inputs by the value of all inputs adjusted by changes in raw materials and work-in-process inventories. The capital variable is deflated by investment price index whereas the input variable is deflated by sectoral price indices.

We use GMM-system method to estimate the production function that controls for the endogeneity of inputs, autocorrelation and heteroscedasticity. The methodology we use, GMM system, takes care of endogeneity of input by creating instrumental variables from existing variables. In the case of GMM-system, two equations are estimated jointly, the differenced equation and the level equation where first differences are used as instruments.

The GMM-system model is defined as a dynamic model: it includes the lagged values of the dependent variable (output) and all inputs. This specification allows for a flexible functional form and incorporates various adjustments.

The output and all input variables are used in log form. Therefore, the coefficients of input variables give us short-term factor elasticities. The long run factor elasticities are defined by

$$\varepsilon_i = (\alpha_i + \alpha_{Li}) / (1 - \alpha_{Lq}) \quad [2]$$

where ε is the long-term elasticity of factor i , α_i the coefficient of factor i , α_{Li} the coefficient of the lagged value of factor i , and α_{Lq} the coefficient of the lagged value of output.

The returns to scale parameter is defined by

$$\kappa = \varepsilon_K + \varepsilon_L + \varepsilon_M \quad [3]$$

where κ is the returns to scale parameter, and the subscripts K, L and M denote capital, labor and inputs, respectively. There are constant returns to scale when $\kappa = 1$, increasing (decreasing) returns when $\kappa > 1$ ($\kappa < 1$).

In order to capture the effects of all shocks and exogenous technological change, all models include time dummies, i.e., a dummy variable for each year.

A dummy variable for foreign ownership is included into the model to capture the effects of foreign ownership on productivity. Foreign firms are, by definition, multinational firms, and are able to transfer technology from abroad, mainly from the parent firm. Therefore, foreign firms are likely to be more productive than domestic firms.

Technological activities of the firms is captured by a dummy variable that is equal to 1 if the firm performs R&D activities, and 0 otherwise. Since the firm can generate new products and/or processes as a result of R&D activities, the R&D dummy variable is expected to have a positive coefficient, i.e., R&D performers would be more productive.

Since the main purpose of our study is to analyse the effects of agglomeration and spillovers, especially from foreign firms, we use a number of proxy variables that are expected to capture the effects of these factors. Note that there are a number of alternative proxy variables. For example, agglomeration can be measured by the density of firms (the number of firms), or by the density of production activities (output). Therefore, we experimented with a number of alternative variables, and replaced a set of explanatory variables by another set.

The first set of proxy variables for agglomeration effects includes the (log) numbers of domestic and foreign firms in the same sector (defined at the NACE 4-digit level) and region (defined at NUTS 2 level). These variable will have positive coefficients if agglomeration of firms leads to higher productivity. We use the number of domestic and foreign firms separately because the extent of spillovers could differ between domestic and foreign firms.

We use two additional variables, the number of domestic and foreign R&D performers in the same sector and region to test if R&D performers are more likely to spillover knowledge and technology to other firms that operate in the same sector and region.

The second set includes the (log) output of domestic and foreign R&D performers in a given sector and region. This set defines agglomeration in terms of output instead of the number of firms as defined in the first set. The number of firms variable would be meaningful if spillovers takes the form of imitation, whereas the output variable could reflect spillovers in the form of externalities and labor turnover.

The third set includes a number of variables about output shares. “Regional share (sector)” is the share of the region in total output of the sector in which the firm operates. The “Foreign share (sector)” and “Foreign share (region)” variables are defined similarly for foreign firms. If there are agglomeration economies in a sector, the firms located in a region where that sector is concentrated in would be more productive. If there are spillovers from foreign firms within a sector, then the “Foreign share (sector)” variable will have a positive coefficient. However, if spillovers from foreign firms have a geographical dimension, then the coefficient of the “Foreign share (region)” variable will be positive.

Benefiting from spillovers is not a passive process, and firms cannot enjoy agglomeration effects to the same extent. To control for the role of the absorptive capacity, we interact agglomeration and spillover variables with firm size (measured by the number of employees) and R&D dummy variable. These interaction variables will reveal if large firms and R&D performers benefit more from agglomeration effects and spillovers. For example, if large firms benefit more, the coefficient of firm size-agglomeration effect interaction variable will be positive. Finally, we also include into the model the output share of large firms in the same sector and region to test if spillovers originate only from large firms.

Descriptive statistics for all the variables for the period analysed are presented in Table 2. Note that with the exception of dummy variables (FDI and R&D performer) and share variables (Regional output share, Foreign share sector and Foreign share region), all variables are in log form. As shown in the table, the share of foreign firms was 3.2% and the share of R&D performers 4.6%. The average number of domestic firms in the same sector and region is 36.9 ($e^{3.608}$). In the most concentrated case of the agglomeration of domestic firms, it reaches 1663, i.e., 1663 firms operating in a sector are located in the same region.

The average number of foreign firms in the same sector-region is much smaller (only 2.1) and its maximum value becomes 33. The average number of R&D performing domestic (foreign) firms in the same region/sector is 2.01 and 1.16 respectively. Although the number of foreign firms is small, the average sectoral share of foreign firms is 11.4%, and the average regional share of foreign firms is

19.7%. The significant difference between the number and output of foreign firms shows that these two measures could reflect different aspects of agglomeration effects and spillovers emanating from foreign firms.

Table 4. Descriptive statistics on Turkey sample

Variable	Mean	Std dev	Min	Max
Output	14.634	1.790	-1.265	23.018
Number of employees	3.664	1.153	0.000	9.663
Capital stock	11.074	1.983	-0.604	20.111
Inputs	14.400	1.970	-1.295	22.968
FDI	0.032	0.175	0.000	1.000
R&D performer	0.046	0.210	0.000	1.000
Number of domestic firms (region/sector)	3.608	1.756	0.000	7.416
Number of foreign firms (region/sector)	0.740	0.869	0.000	3.497
Number of R&D performing domestic firms (region/sector)	0.700	0.784	0.000	3.332
Number of R&D performing foreign firms (region/sector)	0.148	0.372	0.000	2.398
Regional output share	0.291	0.281	0.000	1.000
Foreign share (sector)	0.114	0.156	0.000	1.000
Foreign share (region)	0.197	0.106	0.000	0.534
Output of domestic firms (region/sector)	16.385	4.848	0.000	21.364
Output of foreign firms (region/sector)	0.351	2.435	0.000	21.810
Output of R&D performing domestic firms (region/sector)	3.052	6.975	0.000	24.097
Output of R&D performing foreign firms (region/sector)	9.994	9.233	0.000	24.395

Notes: All variables are in log form.

FDI and R&D performer are dummy variables.

Regional output share, Foreign share (sector) and Foreign share (region) are in percentage.

5.2. Estimation results

Estimation results are presented in Table 5a (without interaction effects) and Table 5b (with interaction effects). We included agglomeration and spillover variables in blocks of variables to check the effects of correlations between explanatory variables.

Estimation results for the production functions are quite robust and sensible. The returns to scale parameter is around 1.05 for almost all models that indicates that there are mild increasing returns to scale in Turkish manufacturing. The (long run) elasticities of capital, labor and inputs are around 0.055, 0.356 and 0.635 which are reasonable. The coefficient of the lagged output variable is small (around 0.2), i.e., output adjusts quickly.

The coefficients of foreign ownership and R&D variables are statistically significant¹ in all models. Foreign firms in Turkish manufacturing are around 13% more productive than domestic firms. As may be expected, R&D performers are more productive than non-R&D performers, and the average productivity differential between R&D performers and non-performers is around 5-6%. Hence, FDI is found to be an important channel for transfer of technology which confirm previous studies on

¹ Unless otherwise noted, "statistically significant" means statistically significant at the 1% level.

Turkey on the relationships productivity and FDI (Taymaz and Saatçi, 1997; Taymaz and Yılmaz, 2007; Lenger and Taymaz, 2007).

Estimation results suggest that there are productivity spillovers from foreign firms operating in the same sector-region. The coefficient of the number of foreign firms operating in the same sector-region is positive and statistically significant. If the number of foreign firms increase by 1%, productivity of all firms operating in that sector and region increases by 0.04% (Model 4, Table 5a), i.e., these effects are economically significant too.

We also find that the number of domestic firms operating in the same sector-region seems to have a negative effect on productivity when the model includes the variable on foreign firms (compare models 3 and 4, Table 5a). There could be congestion or negative competition effects due to agglomeration of domestic, and, most probably, technologically inferior firms. This confirm another study which examine productivity spillovers from foreign and domestic companies based in Turkey and also report negative spillover effects from neighbouring companies (Öztürk and Kılıç, 2015). However, our analysis does not confirm the results of Taymaz and Saatçi (1997), Karacuka and Catik (2011), Çetin and Kalayci (2016), which suggest the presence of R&D knowledge spillovers at provincial level in Turkey.

In order to check if agglomeration and spillovers effects differ by firm characteristics, we use the number of R&D performing domestic and foreign firms in the same sector-region instead of total number of firms (Model 5, Table 5a). In that case, the coefficients of both domestic and foreign firms become positive and statistically significant. The coefficient of the number of R&D performing foreign firms is almost equal to the coefficient of the number of foreign firms (around 0.04), but the coefficient of the number of domestic R&D performers is somewhat smaller (0.008). These results reveal that the extent of spillovers from R&D performing and non-performing firms is quite similar. Domestic R&D performers generate positive spillovers, but they are weaker compared to those generated by foreign firms.

In another group of regressions, we used proxy variables defined in terms of total output instead of total number of firms produced by domestic and foreign firms in the same region. Model 7 shows that when the outputs of both domestic and foreign firms are higher in a sector-region, firms operating in that sector-region are likely to be more productive. These results, when compared to those of Model 4, support the congestion and competition arguments for domestic firms. If there are more domestic firms in a sector-region, it creates negative effects, but if total output produced by domestic firms increase in a sector-region, then firms become more productive. Note that, in this case too, the coefficient of output of foreign firms is higher than the coefficient for domestic firms, i.e., foreign firms' output generate more spillovers.

When the output variables are replaced by the output of R&D performers, the results are the same: there are strong spillovers from the output of both domestic and foreign R&D performers, and the spillovers from foreign firms are stronger than those from domestic firms.

Finally, we redefined agglomeration and spillover variables separately at the sectoral and regional level instead of narrower sector-region level. In this case (Model 6) the “Regional share (sector)” variable shows the share of that region in the sectors’ total output, the “Foreign share (sector)” the share of foreign firms in the sectors’ total output, and the “Foreign share (region)” the share of foreign firms in the regions’ total output. Therefore, for example, the “Foreign share (region)” variable shows if there are regional spillovers from foreign firms that benefit to firms operating in the same region but in different sectors, whereas the “Foreign share (sector)” variable shows if there are spillovers from foreign firms that are beneficial to all firms operating in the same sector irrespective of its location.

Estimation results show that there are pure agglomeration effects (“Regional share (sector)”), i.e., if a region’s share in a sectors’ total output is higher, the firms operating in that region and sector are more productive. Moreover, there are additional spillovers from foreign firms to all firms operating in the same sector, and to all firms operating in the same region, i.e., there are spillovers at the sectoral and regional level independent from each other.

In Models 9 and 10 (Table 5b), different variables used to capture agglomeration and spillover effects are included into the model to check the robustness of estimation results. There is no significant change in estimation results. The only exception is that the coefficient of the output of foreign R&D performers becomes insignificant when the model also includes other variables about spillovers from foreign firms.

Finally, Models 11-14 (Table 5b) include interaction variables that are used to understand if absorptive capacity is important in benefiting from agglomeration effects and spillovers. Most of the variables interacted with firm size have statistically insignificant coefficients at the 5% level, i.e., firm size does not matter in benefiting from spillovers. The only exception is the interaction with “Foreign share (sector)” variable that has a negative and statistically significant coefficient. It seems spillovers from foreign firms operating in the same sector are more important for small firms than large firms. This result does not confirm the study by Önder et al. (2003) which also analyzed spatial characteristics of technical efficiency, technical change and TFP changes by estimating a trans-log Cobb-Douglas production function employing stochastic frontier analysis (SFA) methodology using regions’ share in production, population density and a specialization index based on the value added to represent regional characteristics. Their findings suggest that firms operating with a larger scale are more efficient than small scale ones.

Regarding the interactions with R&D performers variables, the estimation results show that R&D does not matter much for benefiting from spillovers. It seems that R&D non-performers benefit more from spillovers from foreign firms operating in the same sector (Model 12), but when we look at spillovers from foreign R&D performing firms in the same sector-region, R&D activity enhances absorptive capacity, i.e., absorptive capacity created by R&D activity matters for spillovers from other (foreign) R&D performers. These results may indicate that there could be spillovers specific to technologically sophisticated firms.

Models 15 and 16 are estimated to check if only large firms generate spillovers. When the output share of large firms in the same sector-region is the only spillover variable (Model 15), the estimation results suggest that there are spillovers from large firms to others operating in the same sector-region. However, when three aggregate spillover variables are included into the model (Model 16), the coefficient of the output of large firms in the same sector-region becomes insignificant, i.e., the existence of large firms does not create more spillovers.

Table 5a. Production function estimation results for Turkey (2006-2013, GMM-System results)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	GMM	GMM	GMM	GMM	GMM	GMM	GMM	GMM
Returns to scale	1.051	1.046	1.044	1.045	1.046	1.046	1.048	1.047
Lag output	0.217** (0.0207)	0.217** (0.0208)	0.216** (0.0207)	0.214** (0.0207)	0.217** (0.0207)	0.213** (0.0208)	0.218** (0.0208)	0.216** (0.0207)
Labor	0.485** (0.0555)	0.488** (0.0556)	0.479** (0.0544)	0.485** (0.0546)	0.501** (0.0563)	0.500** (0.0558)	0.497** (0.0559)	0.497** (0.0560)
Lag labor	-0.208** (0.0331)	-0.211** (0.0333)	-0.207** (0.0327)	-0.209** (0.0328)	-0.218** (0.0336)	-0.215** (0.0333)	-0.216** (0.0335)	-0.215** (0.0335)
Capital	0.0370** (0.00439)	0.0374** (0.00442)	0.0369** (0.00436)	0.0370** (0.00436)	0.0380** (0.00445)	0.0378** (0.00444)	0.0379** (0.00445)	0.0379** (0.00444)
Lag capital	0.00586** (0.00205)	0.00592** (0.00205)	0.00587** (0.00204)	0.00598** (0.00204)	0.00608** (0.00205)	0.00615** (0.00205)	0.00608** (0.00206)	0.00607** (0.00205)
Inputs	0.485** (0.0556)	0.479** (0.0560)	0.487** (0.0551)	0.482** (0.0553)	0.466** (0.0567)	0.468** (0.0563)	0.472** (0.0564)	0.471** (0.0564)
Lag inputs	0.0184 (0.0278)	0.0198 (0.0279)	0.0166 (0.0276)	0.02 (0.0276)	0.026 (0.0282)	0.0261 (0.0280)	0.0229 (0.0281)	0.024 (0.0281)
Foreign (dummy)		0.133** (0.0188)	0.130** (0.0182)	0.115** (0.0171)	0.130** (0.0186)	0.109** (0.0173)	0.138** (0.0199)	0.130** (0.0187)
R&D performer (dummy)		0.0602** (0.00949)	0.0590** (0.00919)	0.0539** (0.00893)	0.0576** (0.00934)	0.0509** (0.00907)	0.0617** (0.00956)	0.0545** (0.00906)
N domestic firms (sector-region)			-0.00099 (0.00149)	-0.0161** (0.00263)				
N foreign firms (sector-region)				0.0427** (0.00390)				
N domestic R&D performers (sect-reg)					0.00771** (0.00184)			
N foreign R&D performers (sect-reg)					0.0416** (0.00395)			
Regional share (sector)						0.0663** (0.00811)		
Foreign share (sector)						0.198** (0.0179)		
Foreign share (region)						0.0614**		

						(0.0150)		
Q domestic firms (sect-reg)							0.00255**	
							(0.000408)	
Q foreign firms (sect-reg)							0.00359**	
							(0.000865)	
Q domestic R&D performers (sect-reg)								0.000750**
								(0.000158)
Q foreign R&D performers (sect-reg)								0.00169**
								(0.000181)
Firm size * Regional output share								
Firm size * Foreign share (sector)								
Firm size * Foreign share (region)								
R&D performer * Regional output share								
R&D performer * Foreign share (sector)								
R&D performer * Foreign share (region)								
Firm size * Q domestic R&D performers (sect-reg)								
Firm size * Q foreign R&D performers (sect-reg)								
R&D performer * Q domestic R&D performers (sect-reg)								
R&D performer * Q foreign R&D performers (sect-reg)								
Q share of large firms (sect-reg)								
Constant	2.795**	2.837**	2.802**	2.886**	2.904**	2.889**	2.824**	2.876**
	(0.245)	(0.248)	(0.249)	(0.255)	(0.251)	(0.251)	(0.250)	(0.249)
Observations	123947	123947	123947	123947	123947	123947	123947	123947
Number of ID	32739	32739	32739	32739	32739	32739	32739	32739
AR1	-20.33	-20.11	-20.53	-20.31	-19.61	-19.73	-19.85	-19.79
AR2	2.964	2.961	2.953	2.843	2.924	2.827	2.982	2.937
AR3	2.015	1.993	1.981	2.003	1.991	1.954	1.988	1.999
Hansen J	37.05	35.75	36.26	35.78	33.74	34.74	34.16	34.13
Jdf	22	22	22	22	22	22	22	22
Jp	0.0234	0.0323	0.0285	0.032	0.0522	0.0413	0.0473	0.0477

Table 5b. Production function estimation results for Turkey (2006-2013, GMM-System results)

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
VARIABLES	GMM	GMM	GMM	GMM	GMM	GMM	GMM	GMM
Returns to scale	1.041	1.040	1.085	1.046	1.043	1.047	1.047	1.046
Lag output	0.210**	0.210**	0.204**	0.213**	0.207**	0.216**	0.220**	0.216**
	(0.0207)	(0.0207)	(0.0205)	(0.0208)	(0.0203)	(0.0207)	(0.0210)	(0.0210)
Labor	0.482**	0.483**	0.521**	0.500**	0.451**	0.499**	0.487**	0.488**
	(0.0549)	(0.0548)	(0.0737)	(0.0558)	(0.0531)	(0.0560)	(0.0563)	(0.0559)
Lag labor	-0.207**	-0.208**	-0.208**	-0.215**	-0.189**	-0.216**	-0.208**	-0.205**
	(0.0329)	(0.0328)	(0.0344)	(0.0333)	(0.0314)	(0.0335)	(0.0336)	(0.0332)
Capital	0.0366**	0.0367**	0.0364**	0.0378**	0.0353**	0.0380**	0.0374**	0.0372**
	(0.00435)	(0.00435)	(0.00444)	(0.00444)	(0.00423)	(0.00444)	(0.00454)	(0.00452)
Lag capital	0.00606**	0.00607**	0.00559**	0.00615**	0.00516**	0.00608**	0.00522*	0.00536*

	(0.00203)	(0.00203)	(0.00202)	(0.00205)	(0.00196)	(0.00205)	(0.00211)	(0.00210)
Inputs	0.485**	0.483**	0.487**	0.468**	0.518**	0.469**	0.477**	0.475**
	(0.0558)	(0.0557)	(0.0575)	(0.0563)	(0.0528)	(0.0564)	(0.0569)	(0.0567)
Lag inputs	0.0201	0.0207	0.0213	0.0262	0.00679	0.025	0.0179	0.0197
	(0.0278)	(0.0278)	(0.0284)	(0.0281)	(0.0267)	(0.0281)	(0.0282)	(0.0280)
Foreign (dummy)	0.0974**	0.0985**	0.119**	0.109**	0.127**	0.137**	0.134**	0.108**
	(0.0162)	(0.0164)	(0.0190)	(0.0173)	(0.0187)	(0.0193)	(0.0194)	(0.0177)
R&D performer (dummy)	0.0445**	0.0426**	0.0595**	0.0481**	0.0648**	-0.0125	0.0603**	0.0497**
	(0.00833)	(0.00803)	(0.00788)	(0.0117)	(0.00772)	(0.0153)	(0.00955)	(0.00908)
N domestic firms (sector-region)	-0.0181**	-0.0187**						
	(0.00358)	(0.00358)						
N foreign firms (sector-region)	0.0199**	0.0217**						
	(0.00261)	(0.00266)						
N domestic R&D performers (sect-reg)	0.00225							
	(0.00258)							
N foreign R&D performers (sect-reg)	0.00702*							
	(0.00350)							
Regional share (sector)	0.0906**	0.0906**	0.135**	0.0656**				0.0659**
	(0.0144)	(0.0143)	(0.0517)	(0.00807)				(0.00790)
Foreign share (sector)	0.136**	0.141**	0.124	0.205**				0.205**
	(0.0126)	(0.0129)	(0.0857)	(0.0186)				(0.0183)
Foreign share (region)	0.0613**	0.0611**	0.848*	0.0587**				0.0550**
	(0.0146)	(0.0146)	(0.397)	(0.0155)				(0.0154)
Q domestic firms (sect-reg)								
Q foreign firms (sect-reg)								
Q domestic R&D performers (sect-reg)	0.000408*				0.00438	0.000678**		
	(0.000207)				(0.00227)	(0.000158)		
Q foreign R&D performers (sect-reg)	-8.8E-05				0.00296**	0.00177**		
	(0.000170)				(0.00105)	(0.000190)		
Firm size * Regional output share			-0.0173					
			(0.0126)					
Firm size * Foreign share (sector)			0.0192					
			(0.0193)					
Firm size * Foreign share (region)			-0.198*					
			(0.0995)					
R&D performer * Regional output share				0.0179				
				(0.0185)				
R&D performer * Foreign share (sector)				-0.0627**				
				(0.0209)				
R&D performer * Foreign share (region)				0.0463				
				(0.0394)				
Firm size * Q domestic R&D performers (sect-reg)					-0.00033			
					(0.000250)			
Firm size * Q foreign R&D performers (sect-reg)					-0.00092			
					(0.000567)			
R&D performer * Q domestic R&D performers (sect-reg)						-0.00013		
						(0.000460)		
R&D performer * Q foreign R&D performers (sect-reg)						0.00392**		
						(0.000831)		
Q share of large firms (sect-reg)							0.0331**	-0.00601
							(0.00701)	(0.00642)
Constant	2.881**	2.886**	2.728**	2.891**	2.690**	2.887**	2.848**	2.854**
	(0.261)	(0.260)	(0.250)	(0.251)	(0.244)	(0.250)	(0.254)	(0.254)

Observations	123947	123947	123947	123947	123947	123947	121218	121218
Number of ID	32739	32739	32739	32739	32739	32739	32403	32403
AR1	-20.3	-20.28	-20.08	-19.71	-21.69	-19.72	-20.1	-20.08
AR2	2.793	2.792	2.686	2.82	2.829	2.931	2.989	2.877
AR3	1.952	1.957	1.887	1.956	1.935	1.998	1.996	1.925
Hansen J	37.76	37.78	39.71	34.51	41.78	33.97	35.04	34.6
Jdf	22	22	22	22	22	22	22	22
Jp	0.0195	0.0194	0.0117	0.0436	0.00665	0.0495	0.0383	0.0426

Standard errors in parentheses

** p<0.01

Notes: Standard errors in parentheses (** p<0.01, * p<0.05)

All variables are in log form. There are 123,947 observations (32,739 firms) in the sample.

FDI and R&D performer are dummy variables.

Regional output share, Foreign share (sector) and Foreign share (region) are in percentage.

All model includes time dummies.

GMM instruments: From the 2nd lag for output, labor, and inputs, and from the 1st lag for capital.

5.3. Productivity dynamics and differentials

The previous section summarizes the results of production function estimates that reveal which factors contribute to total factor productivity. In this section, we will look at the dynamics of productivity by region and firm size.

By using the estimated coefficients of the production function, the (log) level of total factor productivity for each firm-year is calculated as follows:

$$TFP_{i,t} = q_{i,t} - \alpha^*_{Lq}q_{i,t-1} + \alpha^*_{K}K_{i,t} + \alpha^*_{LK}K_{i,t-1} + \alpha^*_{LL}L_{i,t} + \alpha^*_{LL}L_{i,t-1} + \alpha^*_{M}M_{i,t} + \alpha^*_{LM}M_{i,t-1} \quad [4]$$

where $TFP_{i,t}$ is the (log) TFP level of firm i at time t . α 's are estimated values of production function coefficients.

We estimated TFP levels by coefficients estimated for all models, and checked if there are significant differences between TFP levels calculated for each model. The coefficients of correlation between TFP levels are above 0.99 for all models, i.e., all models give similar TFP estimates at the firm level. We use the coefficients of Model 9 (Table 5b) in the following analysis.

We ranked all regions by GDP per capita and formed 5 regions on the basis of their ranking. Region 1 has the highest and Region 5 the lowest GDP per capita. Figure 4 presents the mean TFP levels for those five regional groups for the period 2006-2013. It seems that regions 1 and 2 have similar TFP levels, whereas regions 3, 4 and 5 lag behind the more developed regions. It is interesting to observe that the economic crisis in 2009 had a stronger negative effect on less-developed regions (especially the least developed one) in terms of productivity level whereas the developed regions (1 and 2) were able to increase their productivity throughout the period. The less developed regions, after stagnation until 2011 achieved a rapid increase in productivity in 2012 and 2013.

Figure 5 presents similar data grouped by firm size. All firms are classified into three groups, large (employing 250 or more people), medium (50-249 employees) and small (20-49) categories. There are significant productivity differentials between large firms on the one hand, and small and medium-

sized firms on the other. Small and medium-sized firms have, on average, similar productivity level. The effect of economic crisis on productivity across size categories is similar to that for regions. Less productive categories (small and medium-sized firms) felt the effect of economic crisis more than large firms did. Although the TFP level for small and medium-sized firms stagnated before and during the crisis, it increased almost continuously for large firms throughout the period.

Fig. 4. Mean TFP by region (weighted)

Region	2006	2007	2008	2009	2010	2011	2012	2013
1	-0.04086	-0.04054	-0.03106	-0.02401	-0.01794	-0.00118	0.01215	0.03699
2	-0.04157	-0.0393	-0.03714	-0.0327	-0.02575	-0.00529	-0.00036	0.03215
3	-0.12111	-0.12248	-0.12766	-0.11292	-0.11044	-0.09968	-0.08667	-0.02886
4	-0.10743	-0.11709	-0.11065	-0.10562	-0.10815	-0.10078	-0.08362	-0.05089
5	-0.10373	-0.12133	-0.13838	-0.14214	-0.11753	-0.11041	-0.09518	-0.01332
stdev	0.038637	0.044074	0.051108	0.052233	0.0496	0.055162	0.052058	0.038365

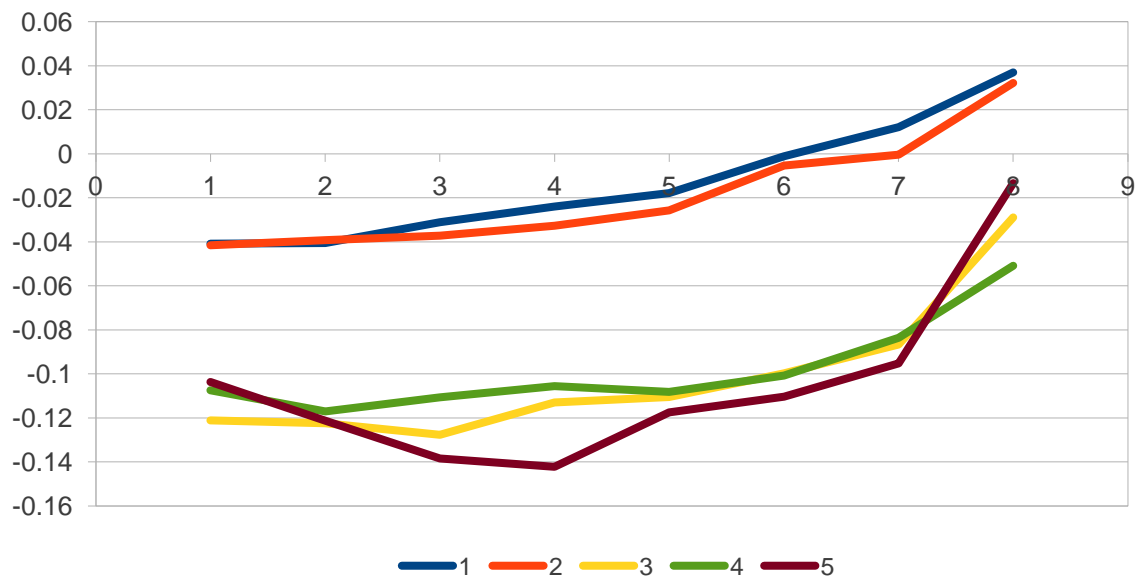
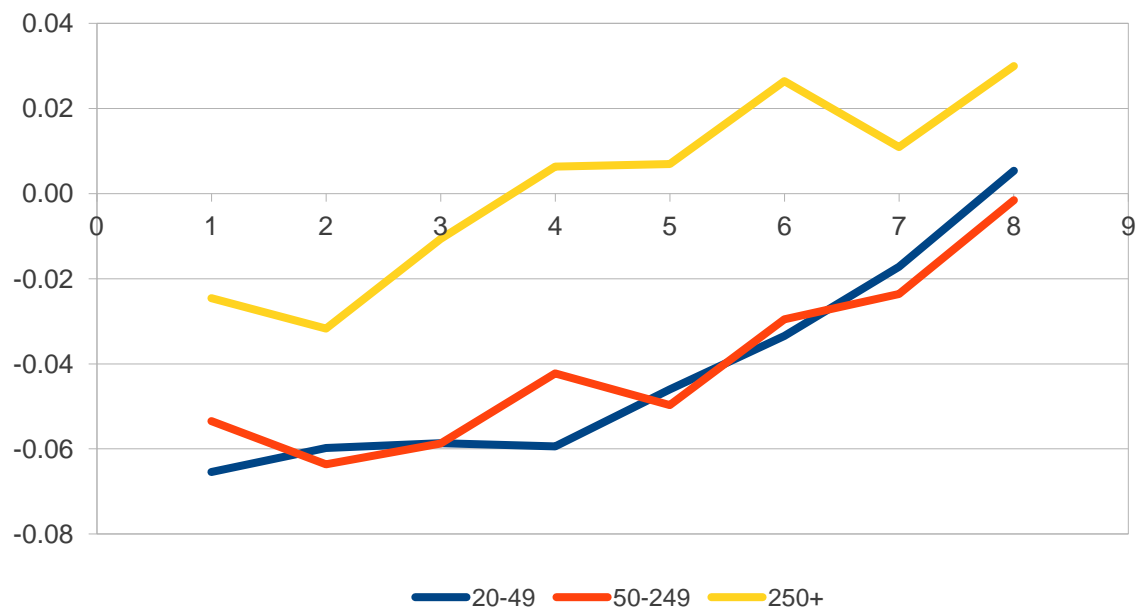


Fig. 5. Mean TFP by firm size (weighted)

Firm size	2006	2007	2008	2009	2010	2011	2012	2013
20-49	-0.07	-0.06	-0.06	-0.06	-0.05	-0.03	-0.02	0.01
50-249	-0.05	-0.06	-0.06	-0.04	-0.05	-0.03	-0.02	0.00
250+	-0.02	-0.03	-0.01	0.01	0.01	0.03	0.01	0.03
	0.021	0.017	0.028	0.034	0.032	0.033	0.018	0.017



6. CONCLUSIONS AND POLICY IMPLICATIONS

We investigated what are the benefits of clustering estimating the effects of aggregation and other localisation variables on firms' productivity. First of all, we considered how far intense competition and polarisation in clusterised areas is able to promote higher productivity. Overall, our results emphasise the relevance of agglomeration economies in Turkey. More in detail, there are positive externalities from foreign firms' agglomeration, conversely the externalities from agglomeration of domestic firms are negative suggesting congestion effects.

Important localised innovation spillovers are also found. Besides, there is evidence on the usual outcome that firms in the same industry benefit more from each other as they are more technologically similar and the sector closeness also matters as this may facilitate the flow and absorption of knowledge among firms. We also found that the territorial and social redistribution of spillovers may be limited in particular from foreign multinationals. This might also occur because firms opened to the foreign market are in general subcontractor which don't have the total autonomy to conduct technological neither technological innovation. We also consider innovation spillovers by type of

firms (SME/large, high/low innovating and hence with high/low absorptive capacity). Hence, we interact agglomeration and spillover variables with firm size (measured by the number of employees) and innovation variables. These interaction variables reveal that the innovation performers benefit more from agglomeration effects and spillovers, as in most of our estimations the coefficient of firm innovation-agglomeration effect interaction variable is positive.

Polarization of activities, is confirmed to be an enhancing factor of firm performances. A model of development based on strong polarization, is confirmed to be enhancing in most cases firm performance and growth.

However, recent decades witnessed an increasing unbalanced process of regional growth in Turkey which led to large income and employment gaps across regions, consequent massive migration, concentration of population in large cities and along the coast, degradation and isolation of internal areas, environmental impoverishment and abandonment.

Implications of the analysis lead to crucial policy questions spurring from this analysis:

- Unbalanced process of regional growth in most Mediterranean countries has to be avoided as it can only led to large income and employment gaps across regions, consequent massive migration, concentration of population in large cities and along the coast, degradation and isolation of internal areas, environmental impoverishment and abandonment to which all have seen that recent decades witnessed.
- While a reallocation of resources to less developed regions could be costly and counterproductive giving that regional tax incentives to poor regions may shift jobs away from territories that do not receive the subsidy, rather than create new ones, the policy target for the government should rather be investing in transportation infrastructure, ease access to housing and develop regional complementarities. Such policies would expand job opportunities for the people outside the coastal region and lead in the long term to a more sustainable convergence of standards of living among regions.
- The experience drawn from this analysis may also give support in identifying key drivers and patterns of localised production and to provide a benchmark to analyse the issue of efficiency of clusters of SMEs in South Mediterranean countries drawing some general directives and policy advices. In particular, results may be useful within the Euro-Med cluster cooperation on industry and innovation framework. The emerging innovation clusters based in Tunisia, Morocco and Lebanon, the CBDs in Tunisia, the Special Economic Zones and the role of MNCs are key elements in this context given the relevance that innovation appears to play to benefit of agglomeration spillovers.

- These results also represents the economic underpinning of policy analysis aimed at fostering innovation at regional level. In spite of the challenges of globalization, place still make the difference and can emerge as laboratories of new partnerships: local/global, private/public driven.

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EMPLOYER BRAND BUILDING FROM THE INSIDE-OUT: HOW EMPLOYER VALUES CONTRIBUTE TO EMPLOYEE ENGAGEMENT

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ABSTRACT

Employer Branding is a concept that is gaining importance within the Human Resources field mainly due to its potential for retaining and attracting talent to boost organisations capabilities and competitiveness. According to the brand management literature, building a brand must start from within, and the employer brand should also function as a reference for a company's current employees. Thus, taking this assumption into account, the main goal of this paper is to understand how employer branding contributes towards employee engagement. In order to address this research problem the authors based the research on a leading manufacturing company in cosmetics, personal care, beauty, homecare and healthcare products and a major supplier of tinplate and plastic packaging, that is going through a process of employer brand building. Field research developed in two steps. First, the HR department and some members of the Board defined the main attributes of the brand as an employer. Second, a survey was administered to senior managers to assess the level of engagement and how they perceive the employer brand attributes. Data dimensionality was reduced using factor analysis and regression analysis tested the relation of employer brand attributes and employee engagement. Factor analysis revealed three main groups of employer brand attributes: Innovation & Growth, Work Environment and Socially Responsible Practices. Employee engagement is mainly explained by Innovation & Growth attributes. The least relevant group of attributes is Socially Responsible Practices. These results contribute to better understand the relation between employer brand and employee outcomes and the importance of defining and managing employer brand attributes to foster employee engagement.

Keywords: Employer Branding, Employee Engagement, Employer Values, Employer Brand Attributes

INTRODUCTION

Companies have sought ever since to fill their human resources needs with the most fit to the job. Taylor and scientific management already stated the need to put the right person in the right job. Nevertheless, the task of attracting candidates has been treated in different ways across the last century.

More recently a new perspective, coined as employer branding, has emerged based on the assumption that a company should approach the labour market in the same way, or based in the same principles, as it approaches the consumer market. Inheriting some basic concepts from marketing, companies should make efforts to build a brand not only for consumers but also for their employees and candidates. Within this context building a strong brand as an employer is at the core of a strategic approach to human resources management.

Employer branding can be viewed from an inner perspective (i.e. how organizations retain talent) and an outer perspective (i.e. how organizations attract talent) (Ferreira and Real de Oliveira, 2013). Most of the research on employer branding follows an outer perspective approach (e.g. (Elving et al., 2012; Van Hove et al., 2013; Jain and Bhatt, 2015; Knox and Freeman, 2006; Kuchеров and Zamulin, 2016; Reis et al., 2017; Wilden et al., 2010; Xie et al., 2014)), by examining issues related with brand image or organizational attractiveness and focused on potential employees. Only a few examples are based on investigating the effects of employer brand on employees' outcomes and behaviours (e.g. (Christie et al., 2015; Maxwell and Knox, 2009; Schlager et al., 2011; Tanwar and Prasad, 2016)).

The present research contributes to the less examined perspective on employer branding – the inner perspective –, and tries to understand how employer branding attributes influence employee outcomes, namely employee engagement. It is commonly accepted that a brand should be built from the inside-out, that is, its main attributes should be found at the core of the company and the way employees live and feel their own employer brand (Maxwell and Knox, 2009). Thus, it should be expected that perceptions of brand attributes might have some impact on employees' behaviours.

The relationship between brand attributes and the impact on employees assumes particular relevance. Specifically, brand attributes should be a source of employee engagement with the company, since those attributes should reflect organizational culture and values, reinforcing its identity and fostering employee engagement (Backhaus and Tikoo, 2004).

Social Identity Approach to Organisational Identification (SIA), an application of the social identity theory (Tajfel & Turner, 1979) and the social categorization (Turner, 1987) to the organizational context (Maxwell and Knox, 2009), frames the approach developed in this research paper. The main assumption of SIA is that the organization, as a social group, offers the means and context for individuals to develop a sense of self-identification with organizational characteristics (organizational identity), which in turn can predict individual and collective behaviours.

Accordingly, the employer brand attributes can function as elements of organisational identity with which employees may, or may not, develop a sense of self-identification. The right employer brand attributes will strengthen the organization-employee relation, which in turn will promote specific attitudes and behaviours, such as employee engagement.

This research paper aims to understand what employer brand attributes are more valued and how they relate with employee engagement. Data collection was made in a specific company that is going through an employer brand building process, thus making the research more contextualized and relevant by providing a practitioner context.

In order to address the research problem, the literature review starts by discussing employer brand, with an emphasis on the inner directed perspective, and goes on to present the concept of employee engagement. Methods are described, namely the way the attributes were defined and selected and the data analysis procedures of data reduction and hypothesis testing. Finally, results are presented and discussed.

Since the paper is based on a specific case, it is expected that the example and experience taken out from this specific company, may illustrate the application of some of the employer brand theoretical assumptions. These include the process of defining the most relevant employer brand attributes, and setting out a strategy that makes the most of the employer brand building by leading to better employee outcomes. Also, it is expected that this results can serve as a benchmark for other companies in order to develop employer brand attributes capable of fostering employees' engagement, thus contributing to companies' outcomes.

LITERATURE REVIEW

Employer Brand

The "employer brand" concept was defined by (Ambler and Barrow, 1996) as "the package of functional, economic and psychological benefits provided by employment and identified with the employing company", with the primary role of "provide a coherent framework for management to simplify and focus priorities, increase productivity and improve recruitment, retention and commitment".

Although employer branding is a concept related with employees and potential employees, its origins can be traced to the notion of corporate brand. More importantly, corporate brand is an important element of a company strategy (Balmer and Gray, 2003) and represents a senior management concern. Another field of study that initially addressed this concept was internal marketing, which gradually shifted towards internal branding. This concept takes more of an "inside-out", value-based approach and seeks to develop and reinforce a common value-based ethos, typically attached to some form of corporate mission or vision (Mosley, 2007).

Since the search for good employees is as fierce as the search for customers, organizations have to be able to differentiate themselves in order to attract and retain the best (Berthon et al., 2005). The notion of employer attractiveness, according to the same authors, is closely related to employer branding. This

could be considered as an outer directed perspective of employer branding (Ferreira and Real de Oliveira, 2013) concerned with aspects such as possible factors affecting the attractiveness of an organization (Lievens et al., 2005), the employer brand as a package of instrumental and symbolic attributes (Lievens, 2007), and a set of characteristics that applicants as well as employees associate with a given employer (Lievens et al., 2007).

Nevertheless for the purpose of this paper we are more interested to look at how employer branding is used towards existing employees. This inner directed perspective of employer branding is characterized by looking at developing a brand from the within, in order to retain talent and to develop a corporate reputation, linking values to employees' behaviours and motivations (Ferreira and Real de Oliveira, 2013).

Studies undertaken within this perspective look at how to retain best workers in order to sustain competitive advantage and to improve business performance (Cardy and Lengnick-Hall, 2011). What are the employees' role in reputation management (Helm, 2011) and how corporate reputations and good governance are built from the inside-out (Martin and Hetrick, 2009). Another emerging field is looking at how employees relate to organizational values. It's not enough to project authenticity to customers – employees must personally subscribe to the brand's values (Wallace, de Chernatony, and Buil, 2011; Weinberger, 2008). Values are communicated to employees via overt internal communications, the ripple effect, senior management example/involvement, HR activities and external communications (Chernatony and Cottam, 2006), and as such a number of failure factors could occur which could hinder the communication of values to employees. Corporate values can motivate employees, but handled incorrectly they can do just the opposite (Edmondson and Cha, 2002).

Employee Engagement

Employee engagement has emerged in recent years either in the practitioner and academic perspectives. Seen as a positive psychological state with behavioural consequences, research shows that employee engagement can have a positive impact on several organizational and individual outcomes, such as discretionary effort and turnover (Shuck and Wollard, 2010), or job satisfaction and organizational citizenship behaviour (Saks, 2006), justifying its raising popularity.

Although there is no widely accepted definition, employee engagement can be understood as “an individual employee's cognitive, emotional, and behavioural state directed toward desired organizational outcomes” (Shuck & Wollard, 2010, p. 103), thus enclosing itself the notion of a kind of motivation clearly expressed in positive behaviours that contribute to the organization as whole.

Work engagement can be defined as a positive, fulfilling, and affective-motivational state of work-related wellbeing. In fact, engagement has emanated from the positive psychology that stresses the need to investigate and find effective applications of positive traits, states and behaviours of employees

within organizations (Bakker and Schaufeli, 2008). As such, engagement can be considered the antipode of burnout (Maslach et al., 2001). Employee engagement is sometimes mistaken with commitment and involvement, mainly due to interchangeable use of the expressions, especially by the practitioners approach (Shuck, 2011).

The measurement of employee engagement is also bone of contention among scholars. (Viljevac et al., 2012) investigated the validity of two measures of work engagement (the Utrecht Work Engagement Scale (UWES) and the (May et al., 2004) scale) that have emerged in the academic literature. They found some evidence for convergent, discriminant and predictive validity for both scales, although neither showed discriminant validity with regard to job satisfaction. They contend that important differences in measuring engagement raises questions on how to measure the construct and the results will be specific to the measures used, limiting generalization.

However, the UWES is one of the most used construct to measure engagement. (Schaufeli, Martinez, et al., 2002), p. 74) defines work engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption”. The construct has been used in several contexts and countries (e.g. (Bakker et al., 2007; Chung and Angeline, 2010; Ouwenel, 2012; Petrou et al., 2012; Salanova et al., 2005; Salanova and Schaufeli, 2008; Schaufeli, Salanova, et al., 2002).

METHODS

Perceptions of employer brand formed by employees and their work engagement are at the centre of this research paper. The construction of an employer brand can be understood as a reflection of several factors, namely the perceptions that employees have of their own employer, which can be translated into brand attributes. Within this framework, the goal of this research paper is to test the relation that Employer Brand Attributes may have with Employee Engagement.

To test this general assumption the research was conducted within a specific organization that is involved in the process of building a strategic approach to their brand as an employer. Colep is part of the RAR Group, and is a leading manufacturing company in the European and Brazilian markets of cosmetics, personal care, beauty, homecare and healthcare products and a major supplier of tinplate and plastic packaging. Colep is present in several countries, namely Portugal, Brazil, Germany, Poland, Spain and the United Kingdom and employs around 3.600 people. Colep's mission is “working with customers to deliver comfort to consumers”, and their stated values include “customer focus”, “ethical and socially responsible”, “learning organization”, “openness, trust and fairness”, “creativity”, and “value creation”.

Measures

The employer brand attributes were specifically formulated for the project under development in the company. The HR team and top management participated in a brainstorm meeting to list the main characteristics of Colep's brand as an employer. For this brainstorm participants were invited to think and discuss the company's employer brand, based on the main distinguishing organizational culture and values and how they could be translated into real practices and be reflected in work environment. The agreed list was then discussed and validated with the CEO and other members of the Board. The final list comprised 19 items (see appendix), and was included in the questionnaire; respondents were asked if the company provided employees with the attribute, rating each item on a 5-point Likert scale (1=totally disagree to 5=totally agree).

Employee engagement was measured using the Utrecht Work Engagement Scale (UWES) (Schaufeli, Salanova, et al., 2002). The construct comprises three dimensions. Vigour refers to the levels of energy (e.g. "At my work, I feel bursting with energy"), mental resilience and persistence. Dedication is about the mental and emotional state that reflects on experience a sense of significance, enthusiasm, inspiration and pride (e.g. "I am enthusiastic about my job"). Finally, absorption means being completely concentrated in ones work (e.g. "I feel happy when I am working intensely"). The original scale is made of 17 items measured in a 7-point Likert scale (1=Not probable; 7=Most probable), but was reduced to 9 items maintaining the original dimensions and good psychometric properties (Schaufeli et al., 2006). For the short version scale, see Appendix.

Participants

For the purpose of this study the target population was line managers from the three higher report levels with leadership functions, according to the company's organizational structure. This option is based on the fact that it would be almost impossible to collect data from lower level employees, since employees are dispersed in several countries and the questionnaire was made available online. The survey was sent by email to all the targeted population and data was collected in June and July 2013.

The total population accounted for 303 senior managers distributed across Portugal, Germany, Poland, UK and Spain. From the total target population, we obtained 170 responses (a 56.1% response rate). The majority of respondents are from Portugal (61%), followed by Germany (20%) and Poland (11%). The United Kingdom (5%) and Spain (3%) are the less represented. Although the company origin is Portuguese, respondents are natives from each of the countries in the sample.

Data analysis

Since employee engagement is measured using a tested scale, exploratory factor analysis was performed to check if the construct's dimensions could be confirmed, followed by reliability analysis and mean scores calculation. Also, the employer brand attributes were subjected to dimensionality

reduction through exploratory factor analysis in order to check if and how the attributes could be grouped in major core brand attributes, thus reflecting main core-values. Finally, and since the main goal is to assess the relationship between the attributes and employee work engagement, a set of regression analysis were performed to assess the relation between the groups of attributes, the general employee engagement and each of the three dimensions.

RESULTS

Employer brand attributes are presented in the following figure. According to respondents the most important attributes of the company's brand are "multicultural environment" (M=4.09; S.D.=.837), "opportunity to belong to a company with an interesting portfolio of products" (M=3.96; S.D.=.763), "openness for proactivity actions" (M=3.88; S.D.=.737) and "informal & healthy relationships" (M=3.86; S.D.=.688). On the opposite, the least relevant attributes are "compensation attractiveness" (M=3.10; S.D.=.841), "recognition/rewards for performance" (M=3.19; S.D.=1.004) and "attractive benefits' package" (M=3.25; S.D.=.934).

Employer Brand Attributes	M	S.D.
EBA01 [Multicultural environment]	4.09	.837
EBA02 [Work / life balance respect]	3.75	.740
EBA03 [Informal & healthy relationships]	3.86	.688
EBA04 [Long term sustainable practices]	3.64	.762
EBA05 [Freedom to innovate]	3.66	.812
EBA06 [Openness for proactivity actions]	3.88	.737
EBA07 [Recognition / rewards for performance]	3.19	1.004
EBA08 [Respect for differences]	3.74	.719
EBA09 [Opportunities for career growth]	3.42	.925
EBA10 [Good work environment]	3.72	.806
EBA11 [Opportunity to belong to a company with an interesting portfolio of products]	3.96	.763
EBA12 [Attractive benefits' package]	3.25	.934
EBA13 [Opportunities for skills development]	3.63	.830
EBA14 [Compensation attractiveness]	3.10	.841
EBA15 [Healthy and safety conditions]	4.01	.799
EBA16 [Meaningful and interesting functions]	3.83	.718
EBA17 [Social and environmental responsibility]	3.79	.775
EBA18 [Job security]	3.74	.845
EBA19 [Openness, trust and fairness in the relation with others]	3.66	.854

Figure 1. *Descriptive Statistics for Employer Brand Attributes*

In order to reduce data dimension of the Employer Brand Attributes, the 19 items were computed into an exploratory factor analysis. The first attempt reduced data to three components (PVAF=57.3%; KMO=.903; $\chi^2=1429.224$, Sig.=.000). However, items EBA09 and EBA11 were withdrawn since they

loaded less than .500 (.491 and .340, respectively). Also, items EBA08, EBA10, EBA14, EBA15 and EBA16 were also withdrawn since they did not clearly loaded on one factor.

A new factor analysis was performed with the remaining items. Three factors were extracted (PVAF=63.6%; KMO=.875; $\chi^2=751.210$, Sig.=.000).

Rotated Component Matrix ^a			
	Component		
	1	2	3
EBA01 [Multicultural environment]		,775	
EBA02 [Work-life balance respect]		,692	
EBA03 [Informal & healthy relationships]		,717	
EBA05 [Freedom to innovate]	,762		
EBA06 [Openness for proactive actions]	,797		
EBA07 [Recognition / rewards for performance]	,632		
EBA13 [Opportunities for skills development]	,715		
EBA19 [Openness, trust and fairness in the relation with others]	,682		
EBA04 [Long term sustainable practices]			,557
EBA12 [Attractive benefits' package]			,703
EBA17 [Social and environmental responsibility]			,614
EBA18 [Job security]			,816
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 6 iterations.			

Figure 2. *Factor Analysis of Employer Brand Attributes*

Following the description of items grouped in each component, and since this an exploratory analysis with no reference to a specific theory, we decided to name components as follows. All components have considerable internal reliability.

Component 1: Innovation & Growth ($\alpha=.827$)

Component 2: Work Environment ($\alpha=.695$)

Component 3: Socially Responsible Practices ($\alpha=.774$)

Figure 3 presents the mean, standard deviation and correlations for all the employee engagement items. It is worth to note that correlation values range from .332 to .711 and all items show significant moderate intercorrelations ($p<0.01$).

	M	S.D.	EE VI1	EE VI2	EE DE2	EE DE3	EE VI3	EE AB3	EE DE4	EE AB4	EE AB5
EE VI1 [At my work, I feel bursting with energy]	5,40	1,278	1								
EE VI2 [At my job, I feel strong and vigorous]	5,54	1,185	,613*	1							
EE DE2 [I am enthusiastic about my job]	5,75	1,233	,490*	,711*	1						
EE DE3 [My job inspires me]	5,37	1,285	,451*	,644*	,760*	1					
EE VI3 [When I get up in the morning, I feel like going to work]	5,38	1,332	,389*	,600*	,617*	,641*	1				
EE AB3 [I feel happy when I am working intensely]	5,92	1,002	,370*	,454*	,373*	,430*	,465*	1			
EE DE4 [I am proud of the work that I do]	6,06	1,127	,397*	,591*	,670*	,667*	,544*	,405*	1		
EE AB4 [I am immersed in my work]	5,80	1,100	,332*	,454*	,459*	,449*	,456*	,433*	,533*	1	
EE AB5 [I get carried away when I am working]	5,41	1,213	,339*	,465*	,511*	,551*	,524*	,474*	,531*	,536*	1

Note: * $p < 0.01$

Figure 3. *Descriptive statistics for Employee Work Engagement*

The 9-items of the short version of UWES were subjected to an exploratory factor analysis in order to check the construct robustness and also the three dimensions' structure suggested by the literature. Data is suitable for factor analysis (KMO=.915; Barlett Test Sig.= .000) and all items group in only one factor with PVAF of 56.9%, with factor loadings above .400. Thus the 9-item UWES short version scale seems to be robust since the one factor result shows that items reflect the construct of work engagement, which is confirmed by the Cronbach's Alpha ($\alpha=.903$).

After computing the mean for the constructs of Employee Engagement (and respective dimensions) and the three components of Employer Brand Attributes, the following figure presents the mean, standard deviation and correlations for all the variables. The items of employee engagement and employer brand core attributes present a significant moderate intercorrelation ranging from $r=.304$ to $r=.498$ ($p < .01$). Also, employer brand attributes show a significant moderate intercorrelation ranging from $r=.526$ to $r=.609$ ($p < .01$). A paired samples t-test indicated significant differences between EBA1 and EBA2, $t(167)=-6.451$, $p < .0005$, and between EBA2 and EBA3, $t(167)=-6.399$, $p < .0005$. However, the differences between EBA1 and EBA3 are not significant. Work Environment (EBA2) has a higher mean score ($M=3.9$; $S.D.=.594$) than Innovation & Growth (EBA1) ($M=3.6$; $S.D.=.654$) and Socially Responsible Practices (EBA3) ($M=3.6$; $S.D.=.640$).

	UWES_9	UWES9_VI	UWES9_DE	UWES9_AB	EBA_1	EBA_2	EBA_3
UWES_9	1						
UWES9_VI	,907***	1					
UWES9_DE	,915***	,762***	1				
UWES9_AB	,843***	,639***	,654***	1			
EBA_1	,498***	,404***	,488***	,439***	1		
EBA_2	,406***	,335***	,436***	,304***	,535***	1	
EBA_3	,397***	,305***	,353***	,412***	,609***	,526***	1

Note: ***p<.01

Figure 4. *Intercorrelations of study variables*

To test the hypotheses for the relationship between Employer Brand Attributes and Employee Engagement, multiple regression analyses were conducted where the general employee engagement, vigour, absorption and dedication dimensions were the dependent variables and the three core Employer Brand Attributes the independent variables. As shown in the following table, Innovation and Growth (EBA1) explains a significant amount of variance of the general employee engagement ($\beta=.350$; $p<.0005$), but also of vigour ($\beta=.296$; $p<.005$), absorption ($\beta=.284$; $p<.005$) and dedication ($\beta=.350$; $p<.0005$). On the other hand, Work Environment (EBA2) attribute explains a part of the variance of the general employee engagement ($\beta=.171$; $p<.05$) and of the dedication dimension ($\beta=.245$; $p<.01$). Finally, Socially Responsible Practices (EBA3) only explain a part of variance of the absorption dimension ($\beta=.216$; $p<.05$).

		R Square	Standardized Coefficients	t	Sig.
			Beta		
UWES9	EBA_1	,281	,350***	3,972	,000
	EBA_2		,171**	2,080	,039
	EBA_3		,094	1,077	,283
UWES9_VI	EBA_1	,183	,296***	3,158	,002
	EBA_2		,149	1,697	,092
	EBA_3		,046	,494	,622
UWES9_AB	EBA_1	,227	,284***	3,108	,002
	EBA_2		,044	,516	,606
	EBA_3		,216**	2,385	,018
UWES9_DE	EBA_1	,282	,350***	3,972	,000
	EBA_2		,245***	2,985	,003
	EBA_3		,011	,131	,896

Note: *p<0.10; **p<0.05; ***p<0.01

Figure 5. *Regression Analysis predicting Employee Engagement*

DISCUSSION AND CONCLUSIONS

The goal of this research was to understand the relation between employer brand attributes and employee engagement. Based on the assumption that a brand must consider the inner dynamics of the company, namely its shared core values and the impact that those values may have on employees' behaviours, this study examined the contribution employees may have in building the employer brand, but also on the potential effect that the employer brand can have on positive employees' outcomes.

The study subject was based on a company that went through the process of strategically building their brand as an employer. This choice was based on two assumptions: first, the need to bridge theory and practice, the academic and practitioner views; second, because this specific company is implementing their employer brand, allowing to follow closely a real case.

After conducting the dimension reduction of data, regression analysis revealed that the core attribute most relevant for explaining employee engagement is "Innovation & Growth". This group presents two interconnected facets of the company. On the one hand, employees recognize that they work in a company where openness to innovate and the challenge to do new things are at the core of company's brand attributes. On the other hand, employees perceive that the company promotes a rewarding environment, through recognition for performance and development opportunities. Thus it can be said that employees tend to feel more engaged if their work is challenging, enriching and rewarding.

Being able to take proactive actions and to innovate is related with job characteristics, since they imply autonomy and problem solving. Some literature supports that job characteristics are related with employee engagement. For example, job characteristics such as autonomy, task variety and significance, or job complexity have a positive influence on engagement (Bakker et al., 2007; Christian et al., 2011).

Learning also plays a pivotal role in this core employer brand attribute. Having opportunities for skills development contributes to employees' engagement. In fact, human resources development practices are considered to be related with higher levels of employee engagement, which is supported by the literature (Fairlie, 2011; Rana et al., 2014; Shuck et al., 2011).

The final component of the "Innovation & Growth" core employer brand attribute is the existence of recognition and rewards for performance. The literature presents mixed results regarding the impact of rewards on engagement (Yalabik et al., 2017). Some literature suggests that extrinsic rewards may damage engagement (Bakker et al., 2006), while others (Gorter et al., 2008) have found a positive link between them. Crawford, based on a meta-analytic study of the antecedents and drivers of employee engagement suggests that the influence of extrinsic rewards on engagement depends on the presence of intrinsic motivation, since the former can have a negative impact on the latter.

“Work Environment” also contributes to explain general engagement. Promoting work-life balance and healthy relationships reveals a concern with well-being, which is valued by this company’s employees. The importance of well-being for employee engagement is documented in the literature (Shimazu et al., 2014; Shimazu and Schaufeli, 2009; Shuck and Reio, 2014), showing that work engagement is an enhancer of several well-being indicators such as life satisfaction, health (reducing psychological distress and physical complaints), psychological well-being, either as an antecedent or as a moderator. In some research work engagement can even be considered a dimension of work-related wellbeing (Robertson and Cooper, 2010; Rothmann, 2008).

Two dimensions underlying wellbeing at work are activation (ranging from exhaustion to vigour) and identification (ranging from cynicism to dedication) (Schaufeli, Salanova, et al., 2002). Accordingly, “Work Environment” also contributes to explain the dedication dimension of employee engagement. Dedication is about significance, enthusiasm, inspiration, pride and challenge (Schaufeli, Salanova, et al., 2002) and work environment includes aspects such as the respect for work-life balance and healthy and informal relationships, which may foster employees’ dedication.

Finally, the “Socially Responsible Practices” core attribute, specially connected with internal CSR (Oliveira et al., 2013), is not so relevant when it comes to promote engagement, just contributing to explain one dimension of employee engagement. Most research tends to relate socially responsible practices with higher levels of employee engagement (Chaudhary, 2017; Mirvis, 2012; Tsourvakas and Yfantidou, 2018). However, when it comes to link internal social responsible practices with employee engagement, some research does not clearly demonstrate this relation (Ferreira and de Oliveira, 2014). The social responsible practices core attribute also included “job security”. The literature also supports the relation of job security (or insecurity) with work engagement. For example, in a study about job insecurity and job performance, (Wang et al., 2015) found that job insecurity was negatively associated with job performance through work engagement when organizational justice was low. Also, (Bosman et al., 2005) examined the relation of job insecurity with work engagement and burnout when mediated by affectivity (either positive or negative). The results showed that higher levels of either cognitive or affective job insecurity were associated with lower levels of work engagement.

Thus, since aspects of socially responsible practices, either internal or external are present (such as job security or Social and environmental responsibility), it would be expected that this core brand attribute would have more impact on employee engagement. However, it just contributes to explain absorption. This dimension of employee engagement is characterized by being fully concentrated in one’s work but with an intrinsic enjoyment. On the one hand, taking into account that this group includes aspects such as job security and attractive benefits package, employees feel a sense of security, which may free them to concentrate on their own job. On the other hand, this group includes long-term sustainable practices

and social and environmental responsibility which may contribute to the intrinsic enjoyment attached to absorption.

These results present some implications. Theoretical implications include the contribution to the understanding of employer brand, namely its contribution to employee and organizational outcomes. These results support the idea that employer branding may be the (new) strategic tool for managing human resources. In terms of practical implications, this research contributes to the importance of managing employer brand as companies manage consumer brand, since understanding the attributes of the employer brand can help companies not only to reflect on their own brand identity, but also manage that identity in order to foster employees' behaviours and performance.

Nevertheless, there are some limitations to be pointed out. This research was based on a single company with its own specificities, making impossible to generalize the results and conclusions; however, it offers some insights to other companies wishing to build a strong employer brand. Despite its widely use, another limitation regards the use of UWES scale to measure engagement since it does not allow isolate job engagement and organization engagement (Saks, 2006). Finally, the procedures to choose the employer brand attributes to be included in the survey may have been biased by the insider perspective of the participants.

Despite the limitation pointed out, this paper makes a specific contribution in linking employer brand attributes to employees' outcomes, namely employee engagement.

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PUBLIC-PRIVATE COOPERATION IN WINE TOURISM - A TERRITORIAL MODEL FOR SMALL MUNICIPALITIES IN ITALY

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ABSTRACT

From a quantitative point of view, Italy as country is the largest producer of wine in the world. Similarly, wine tourism, as additional business opportunity related to wine production in the strict sense, is a phenomenon of great success in Italy, but it has not yet reached the high levels of other countries (especially the New World of Wine). One of the main limits of this delay, even in the presence of significant performances, is the lack of synergistic collaboration, at widespread level, among the operators of the sector. This research intends to investigate in particular the reliability of a possible collaboration model for wine tourism with a 'public' basis that is, from the point of view of the municipality engaged in the promotion of the wine tourism industry insisting on its own territory. The survey, which has proposed a territorial model derived from previous studies on the subject conducted by the authors, has showed the substantial reliability of the model, bringing out, at the same time, a clear difference of perception between non-small municipalities and small municipalities. A recent legislation in Italy, just focused on small municipalities, might help overcome these gaps, freeing in the territory new energies, from both planning and financing point of views, for an even more important development of wine tourism in Italy.

Keywords: Wine business, wine tourism, collaboration networks, territorial networks, territorial systems, small municipalities, public governance, public-private partnerships.

INTRODUCTION

2017 will be remembered by the operators of the Italian wine industry as a very special year, in which the evidence of climate change has been felt with great impact (for all the following information cf. OIV, 2017): a very dry weather, which has brought the Italian production to be around 40 million hectoliters. In terms of quantity, also other 'traditional' wine countries have suffered; if for Italy, always according to OIV data, experts have estimated a decrease of 2018 on 2017 around 23%, for France the decrease is around 19% and for Spain around 15%. The countries of the New World of Wine, however, remain largely stable in terms of production quantities. The only positive exceptions

are Argentina (+25%) in the New World and Portugal (+10%) in the Old World, while in other cases increases refer to previous values that are presumably low and thus suspected of distortions in the calculation evidences (e.g., +169% in Brazil or +64% in Romania). In addition to the summer drought (to be honest, also in other periods of the year), other atmospheric hardships have hit Italy in 2017 (frost, storms, floods, etc.), not everywhere and not with the same intensity, but in any case, contributing to make a very difficult vintage. In many places, however, we can highlight obvious reductions as regards quantity, but also a good if not excellent quality of grapes and wines, with a significant increase of the purchase prices, due to these factors altogether.

These major changes have happened only in one year (please consider that the Italian wine production in 2017 was around 50 million hectoliters, for a reduction from 2017 to 2018 equal to the entire production of South Africa). In addition to the wine sector in the strict sense, 2017 has produced great change in Italy also with regard to the world of wine in general, and wine tourism in particular. In fact, in 2017 the Italian Parliament has approved three very important laws: the Consolidated Law on Vine and Wine, the Small Municipalities Act, and the amendment to the Financial Law for 2018 on wine tourism taxation. These new regulations are of considerable interest: somehow, their integrated use could produce a sort of 'revolution' for Italian wine tourism.

The following study is a scientific derivative of the annual survey – on the state of the art of wine tourism in Italy – conducted every year by the National Association of "Wine Cities". Interviewees have been involved in the evaluation of a framework for wine tourism development that has been thought especially (but not only) for small municipalities (i.e., in Italy, municipalities with less than 5,000 inhabitants). The aim of the research is to emphasize a sort of 'Italian' model for wine tourism, made of beautiful places, delicacy specialties, and environmental habitability. In this mix, it is essential to plan, organize, and manage adequate 'networks of collaboration' among public and private operators, to give the highest value to the *terroir* not only for wine, but also for the entire wine-tourism supply-chain of the territory.

LITERATURE REVIEW

Wine tourism in Italy is a very important phenomenon, arriving at counting, according to the most authoritative estimations (Wine Cities, 2016), more than 14 million accesses for year (considering altogether tourists in the strict sense and hikers) and at least 2,5 billion euro of total value (considering altogether the wealth produced by the operators of the entire wine-tourism supply-chain). Several limitations, however, are still hampering the complete development of wine tourism in Italy: lack of service orientation (Tommasetti and Festa, 2014), absence of a systemic view (Romano and Natilli, 2010; Festa *et al.*, 2015), delay in considering wine tourism as a real business model (Festa *et al.*, 2016).

Moreover, this is a common situation for many countries of the Old World of Wine (i.e., Europe), which are focused very much on wine production and very little on wine tourism, at least if compared with the countries of the New World of Wine (USA, Argentina, Chile, South Africa, Australia, and New Zealand) (Gomez *et al.*, 2018). One of the most important characteristics of 'Italian' wine tourism should reside in the global sustainability of the overall experience (Annunziata *et al.*, 2018; Flores, 2018), adhering to an "Italian Way of Wine" (Festa and Mainolfi, 2013) focused on beauty, quality, and authenticity (Romano and Natilli, 2010; Sasso and Solima, 2018). Even more specifically, as investigated below more in details, rural areas seem to become finally a subject of considerable interest for the activation of new tourism business models in general, and wine tourism in particular (Salvatore *et al.*, 2018).

However, it is not easy to overcome "... the lack of material and non-material resources often associated with such towns" (Rauhut Kompaniets and Rauhut, 2013). From a structural point of view, in truth, this limit seems unsolvable: wine tourists, even earlier than 'wine', are 'tourists' (Tommasetti and Festa, 2014), and they need/desire in general sufficient service, even though not always with best quality standards, given the authenticity spirit of rural tourism. While, from a systemic point of view, new opportunities may arise, also as concerns new tourism strategies, e.g. modularity (del Vecchio *et al.*, 2018). In fact, if a sufficient set of operators/services is almost impossible for small territories, their subjects of governance, also thanks to their natural leadership on the territory (Khodabandehloo, 2014), could collect them through a Resource Based View organization that would involve even other territories (Rauhut Kompaniets and Rauhut, 2013). This would be even truer especially if – and that should just the case of small municipalities – these resources are valuable, rare, inimitable, and organized, according to the VRIO model (Barney, 1995), especially for wine tourism (Casas-Romeo *et al.*, 2016).

RESEARCH METHODOLOGY

At the basis of the annual survey conducted by the National Association of "Wine Cities" on the state of the art of wine tourism in Italy is a structured methodological approach, whose pillars are the following.

- 1) The survey has concerned the municipalities that are members of the National Association of "Wine Cities" (throughout the entire country), being the main promoters, even only for identification, of wine tourism territories. All the municipalities present in the database of the association have been contacted (420), invited to respond once via e-mail notice (universe) and then via telephone reminder (sample). At the end of the survey, 'true' respondents have been 85 (in other words, respondents whose responses have nourished correctly the research database). Thus,

the survey perimeter covers 85 municipalities of 420 (i.e., 20.24%). From these considerations, it is evident that the data collected from the field have been derived from a sample that has been selected first with the non-probability sampling technique of convenience, and secondly, with the non-probability sampling technique of judgment. As regards the statistical reliability of the survey, in the case of simple random sampling, the sample thus obtained would have been representative for 89.90% of cases with a maximum of 8% of error (0.08 on a unit basis).

- 2) Beyond an overall analysis of the wine tourism phenomenon, and from an exploratory point of view, the survey has proposed also a possible model of wine tourism development based on 'collaborative' networks among public and private operators, in which to highlight the key players of the wine tourism industry and the main problems/opportunities in terms of collaboration.
- 3) The territorial model of 'collaborative network' and the related questionnaire is result of the scientific activity of a research group pertaining to the Postgraduate Course in "Wine Business" of the University of Salerno. The questionnaire consists of 18 questions globally. Before distributing the questionnaire in the field, having prevailing institutional value, it has been tested, verified, and validated by the staff persons in charge of the National Association of "Wine Cities".
- 4) The entire questionnaire procedure has been online, by using a software platform. This has generated a) the links to get to the questionnaire, b) the web masks for compilation (accessible from computers, tablets, and smartphones), and c) the spreadsheets displays, so to simplify respectively the filling of the fields, the accuracy of the answers, and the subsequent setting up of the database. For reasons of mere approximation/rounding of the percentages, some data have not perfectly added up to 100%, but 99.99% or 100.01%.
- 5) The above methodology can be replicated efficiently in further investigations, even trans-national if considering the more and more intense collaboration between "Wine Cities" (the National Association of wine municipalities in Italy) and "Recevin" (the International Association of wine municipalities in Europe).

RESEARCH OBJECTIVE

This study aims to provide a possible answer to the following research question: "What is the relational context of reference of the municipality engaged in wine tourism?" Therefore, the perspective of the survey is specifically that one of municipalities (and not of other actors, public or private, involved in the overall wine tourism offer), because of two fundamental reasons:

- 1) wine tourism, of course, must be developed in a territory with some interest about wine; but, at the same time,

2) the only wine offer, intended as cultivating grapes, transforming grapes into wine, and bottling wine, is not enough, because wine tourism is first and foremost 'tourism'.

In developing such exploration, furthermore, identification, activation, and management of a relational context are strategic operations that constitute a valuable interpretation key of the wine tourism territory. In fact, the subject of governance (first of all, the municipality) should tend ever more to shift the dynamic behavior from a government perspective (top-down) to a facilitation perspective (bottom-up).

In this research, therefore, the first problem for the municipality (of the wine tourism territory) is to define the relational context from a wine tourism point of view. This is the portion of macro- and micro-environment that the subject of governance of the municipality, even only as regards wine tourism, considers a system of activities/services able to co-create wine tourism value. For this reason, the exploratory research, which has investigated the municipalities belonging to the National Association of "Wine Cities", presents the following setting.

First, moving from previous studies (Pellicano *et al.*, 2015; Festa *et al.*, 2015), a possible list of actors, public and private, which should cooperate 'theoretically' with the municipality to propose an effective wine tourism offer (cf. Fig. 1), has been proposed.

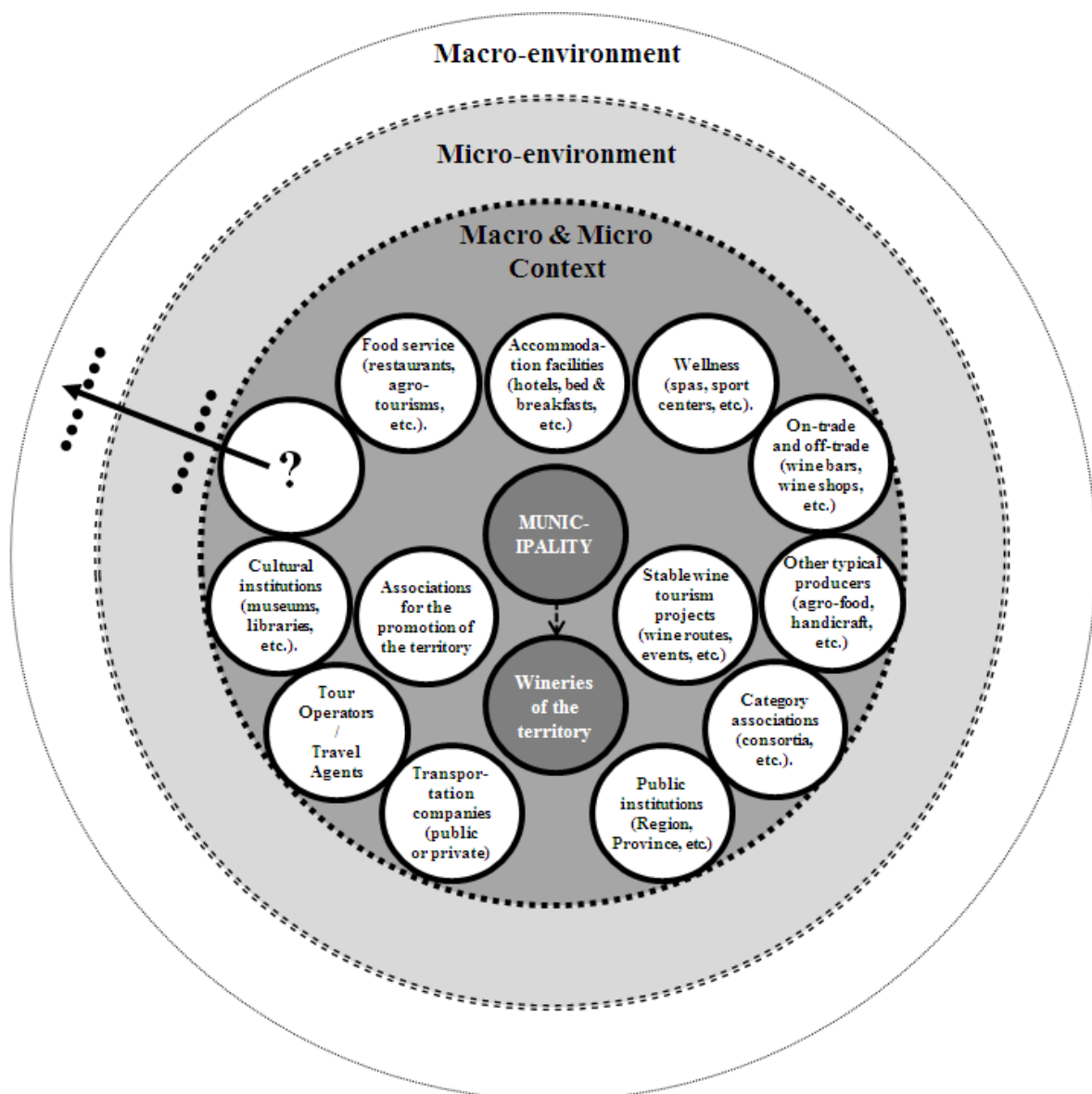


Fig. 1. Synopsis of the territorial model for wine tourism based on 'municipalities' (contextual reworking of the authors from Festa et al., 2015).

Of course, interviewees have had the possibility to add other actors that are not present in the list, but that are relevant in their opinion. Then, next to each category a rating scale (from 0 to 10) indicates how much important 'in theory' the interviewee considers each operator for the collaboration with the municipality (for purely wine tourism aims).

ANALYSIS OF THE RESULTS

Table 1 illustrates synoptically the main findings of the survey. In order to bring out a particular highlight for small municipalities, distinction exists among "all municipalities", "non-small

municipalities”, and “small municipalities”, finally indicating the perception spread between non-small municipalities and small ones.

Category of wine tourism operators on a territorial basis	Strategic relevance of the category from the point of view of the ‘municipality’ (average values, from 0 to 10)			
	ALL MUNICIPALITIES	NON-SMALL MUNICIPALITIES	SMALL MUNICIPALITIES	SPREAD (NON SMA)
Wineries of the territory	8.47	8.65	8.28	0.37
Food service (restaurants, agro-tourisms, etc.)	8.11	8.65	7.53	1.12
Accommodation facilities (hotels, bed & breakfasts, etc.)	7.73	8.18	7.25	0.93
Wellness (spas, sport centers, etc.)	5.12	5.65	4.56	1.09
On-trade and off-trade (wine bar, wine shops, etc.)	6.55	7.41	5.63	1.78
Other typical producers (agro-food, handicraft, etc.)	6.86	7.32	6.38	0.94
Category associations (consortia, etc.)	6.65	7.35	5.91	1.44
Public institutions (Region, Province, etc.)	7.15	7.44	6.84	0.60
Stable wine tourism projects (wine routes, events, etc.)	7.48	8.03	6.91	1.12
Associations for the promotion of the territory	7.42	7.59	7.25	0.34
Transportation companies (public or private)	6.15	6.59	5.69	0.90
Tour Operators / Travel Agents	6.71	7.24	6.16	1.08
Cultural institutions (museums, libraries, etc.)	6.50	7.03	5.94	1.09
Other (if ‘Other’ please specify)	Interviewees have proposed no additional categories			

Tab. 1. Perceived relevance of the collaboration with the individual category of wine tourism operator.

All the categories of operators provided by the model have been considered sufficiently relevant (receiving an assessment in terms of perceived relevance that is equal to or greater than 6 on a 10 basis), except that one relating to “Wellness” (spas, sport centers, etc.). The deep analysis of the assessments emerging from non-small municipalities and small municipalities does not reveal substantial differences on the average of the assessments for each category, but reveals instead a substantial, because systematic, evidence. In fact, the average of the assessments concerning the perceived relevance for each category of operators of the potential wine tourism offer, when expressed by small municipalities, is always lower than that one expressed by non-small municipalities. The higher ‘spread’ concerns “On-trade and off-trade” (wine bars, wine shops, etc.) for a value equal to 1.78, and “Category associations” (consortia, etc.) for a value equal to 1.44. The third highest spread

value (1.12) concerns both “Food service” (restaurants, agro-tourisms, etc.) and “Stable wine tourism projects” (wine routes, events, etc.).

A possible reason for this difference could be that wine tourism is more ‘restricted’ with respect to food-and-beverage tourism in general (and then, with a potential minor impact in more restricted areas), but two additional evidences seem demonstrating the opposite. First, this reflection should be true also for non-small municipalities; second, there is a spread concerning also the relevance of “Wineries of the territory”. Thus, our consideration is that small municipalities simply perceive lesser relevance about the operators of the entire wines tourism offer, most probably for cultural and strategic reasons.

Instead, this territorial model can be useful most of all for small municipalities because it is oriented to overcome the lack of resources (i.e., operators) emerged from the literature review. In this, there is a confirmation of what previous studies have highlighted, while a possible contribution of this research relies in proposing a different methodology for overcoming this natural difficulty, i.e. putting together the necessary services/activities for wine tourism in small municipalities not only from a private point of view, but also from a public-private point of view. A practical example of this potentiality is the hospitality solution of ‘Albergo Diffuso’, which physiologically implies collaboration with private operators and public authorities and which is nowadays a success story in many Italian small rural towns (Morena et al., 2017).

RESEARCH LIMITATIONS AND SCIENTIFIC/MANAGERIAL IMPLICATIONS

From the investigation on the field and the subsequent analysis of the results, two substantial evidences have arisen.

- ⊙ Except “Wellness” (spas, sport centers, etc.), all the operators provided by the proposed territorial model for wine tourism, developed from the point of view of the municipalities, have been considered significant for the overall wine tourism offer of the territory.
- ⊙ Average assessments about the perceived relevance are quite similar, but a systematic evidence is present: the relevance perceived by small municipalities as concerns the operators of the entire wine-tourism supply-chain is always lower than that one perceived by non-small municipalities.

These evidences, thanks to the sampling procedure, seem to show substantial reliability. From a strictly scientific point of view, however, since the sampling have been conducted according to non-probabilistic manner, it is not possible to extend with certainty the obtained results to the whole universe of the municipalities associated to “Wine Cities”, and even less, of course, to the entire

universe of Italian municipalities. Subsequent studies, therefore, are necessary to increase the reliability of the results of the current research, which remains exploratory.

As regards scientific and managerial implications, it seems that there is an orientation of small municipalities to consider the operators of the sectors that are 'adjacent' to the wine sector in the strict sense, on average, as non-relevant for the overall wine-tourism supply-chain. In the above disarticulation, from the point of view of the small municipalities, five categories out of ten do not reach the sufficiency score (Wellness, On-trade and off-trade, Category associations, Transportation companies, and Cultural institutions). The evidence is comprehensible: in a territory with limited size (at least for the population), the 'core' of the wine tourism offer is the winery, while the other categories of operators of the overall supply chain, when they exist, play a secondary or even marginal role (i.e., lower than 6/10).

In any event, the competition potentiality of a wine tourism destination that would pose its territorial attraction only on wine seems at least risky, since service orientation of the wine tourism industry and collaboration among the partners of the wine-tourism supply-chain nowadays seem to be common principles in the wine tourism economy. For the Italian territory in particular, it is possible that an important role would belong to the above-mentioned Small Municipalities Act, of which some 'collaborative' applications seem feasible in order to increase wine tourism cooperation, obviously from the point of view of the governance of the small municipality.

CONCLUSION

The focus on a proposal for a wine tourism territorial model has highlighted a different propensity of small municipalities in evaluating, for wine tourism purposes, the relevance of the industry players (wineries and other operators). Small municipalities particularly, however, could represent a 'point of reference' (even only thanks to their high number) for an 'Italian' model of wine tourism to operate in territories with limited size, completely different one from another, and based on beautiful sceneries, fine cuisine, and environmental sustainability.

The Italian Law No. 158, dated 10 June 2017 and published in the Official Gazette on 2 November 2017, has been intended exclusively for small municipalities, providing funds and designing possible scenarios of action (Small Municipalities Act). Among the possible applications of this law, some solutions are especially suited for wine tourism. Nevertheless, skills, experiences, and projects available at the service of local governance, including ad hoc training for public operators, are necessary in order to make even more attractive and competitive the wine tourism offer of small municipalities in Italy.

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TERRITORIAL CAPITALISM AND GLOBAL COMPETITION: THE 'MADE IN ITALY' CHALLENGE FOR SMES

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ABSTRACT

In an increasingly globalized market environment, there is an impetus for many companies to look to foreign markets in order to maintain and expand margins and competitive advantage. Once embarked on this endeavor, organizations are involved in governing and managing the complex and vast competitive and institutional net of finance, production, communication, and distribution related relationships that constitute globalization. The push to engage in international development is imperative and even small and medium enterprises (SMEs) feel the need to extend their business activity beyond conventional local markets, identifying and employing distinctive yet accessible competitive advantages to be able to compete. One such possible factor is exploration and interaction with the local territories in which they reside.

This study analyses this territorial issue as a distinctive factor through which the concept and practice of the label of 'Made in Italy' operates. Specifically, it considers the role of inter-territorial collaborations – outsourcing activities with smaller added value whilst preserving and enhancing history, style, and talent that constitutes the essence of Italian 'quality' – as pillar of the Italian territorial capitalism, operating with a 'glocal' approach. The research investigates this Italian phenomenon through an investigation on SMEs that compete successfully abroad (although also in the domestic market) with a 'glocal' approach, through the formula of industrial districts.

The findings conclude that international expansion is always complex (as, in truth, every growth/development strategy is). For SMEs, however, territorial capitalism could emerge as a specific factor of competitiveness, clearly and most of all when the territorial reputation is noteworthy, like the case of 'Made in Italy' is.

Keywords: Italy, Made in Italy, country of origin effect, made in effect, territory, territorial capitalism, SMEs, international competition, globalization, glocalization.

INTRODUCTION

Within contemporary globalization processes, enterprises operate in institutional atmospheres that are ever more complex and environments that are ever more competitive. Much of this dynamics derives from the impact of new technologies, which have provided enhanced capacities for transportation, travel, and communication, with direct influence on knowledge circulation, whose consequence is the emersion of global markets (Levitt, 1983; Green et al., 2012; Kiss et al., 2012; Kinser, 2015). At first glance, these developments could undermine the reasons for the successful existence of local markets, products, and firms, but localized dimensions can be indeed a privileged source of differentiation (Porter, 1986; Dossi et al., 1994; Schiele and Ebner, 2013). Moreover, within the evolution of globalization, competition exists also among geographic areas and their abilities to guarantee specific operating conditions for enterprises (Di Cimbrini, 2008).

Thus, internationalization choices, starting from the mere exportation, are more and more complicated and sophisticated, in particular for smaller enterprises that wish to extend their activities beyond the domestic market. However, from a cognitive point of view, the territorial dimension of business development provides also a basis on which knowledge is available locally, decoding markets stimuli, and discerning 'common languages' from and within the total system (Ernst and Kim, 2002; Di Cimbrini, 2008; Hong et al., 2017). Small and Medium Enterprises in particular (i.e., as per European Union definition, enterprises with less than 250 employees) are well placed to derive this new competitive advantage through their size and structure. In fact, they are naturally oriented to a tight interaction with their territory, communities, and economies, engaging continuously exploratory learning as well (Ahlström-Söderling, 2003; Belussi et al., 2008, Fernández-Esquinas et al., 2017).

Furthermore, if considering the peculiarity of the 'Made in Italy' effect, in order to consolidate the presence of Italian SMEs on the worldwide market, development strategies and policies must consider very accurately the factors connected to the territory. These can be, for example, entrepreneurial abilities, human and social capital, and infrastructure nets (Schiuma and Lerro, 2008; Del Baldo, 2012; Salvador et al., 2014; Demartini and Del Baldo, 2015). To this end, the power of 'Made in Italy', with all the positive aspects associated, has arisen, and its consolidation is mainly due to the distinctive equilibrium between specific technical-economic components (involving characteristic clusters of skills and knowledge) and specific territorial-cultural components (drawing on socio-historical elements). In fact, every 'product' presents both tangible (raw materials, production techniques, and so on) and intangible (social methods of working, territory of origin, and so on) elements (Lawless and Fisher, 1990; Peneder, 2002; Qureshi, 2017), clearly positively or negatively.

Based on the above premises, this study analyzes territoriality as an element to describe and characterize 'Made in Italy' within the process of globalization of SMEs. However, within this remit

there are significant challenges: Italian SMEs should aim to preserve their typical territorial specificities (as discussed), but, in a changing global environment, they may need to embrace collaborations with enterprises/territories that are further afield. In so doing, they should outsource activities with smaller value whilst maintaining and preserving all those factors (Italian culture, tradition, history, style, and talent) that characterize an Italian product of quality (Goodman et al., 1989). Thus, this study focuses on territorial capitalism (as local structural capital) as a strategic component of 'Made in Italy' (as global reputational capital), aiming at highlighting their most important connections, from a structural (*statics*) and systemic (*dynamics*) point of view, for the international success of Italian SMEs, most all when active in aggregation forms.

LITERATURE REVIEW

An overview about 'Made in Italy' on a SMEs basis

Speaking in general, the 'Made in Italy' concept refers to Italian handicraft and industrial productions that have often excelled in international business competition. In fact, many Italian products have been recognized significant quality of workmanship, attention to details, design of forms, and so forth. Just as evidences, when talking about large enterprises, successful examples of 'Made in Italy' can be Gucci, Prada, and Armani about fashion; Ferrari, Maserati, and Alfa Romeo about automotive; Ferrero, Barilla, and Lavazza about food; and so on (Brand Finance, 2018). When talking about SMEs, successful examples of 'Made in Italy' can be MooRER (personal luxury goods especially in Japan), Pantofola d'Oro (footwear especially in the USA), and MGM Mondo del Vino (support to the wine industry especially in Russia), and so on (Sace-Simest, 2018).

In truth, beyond the power of single Italian brands, nowadays well known throughout the world, it is to highlight that the real essence of the 'Made in Italy' concept is due mainly to SMEs. First, because they better represent the current 'reincarnation' of handicraft producers of the past, and for example it is almost impossible to distinguish between micro firms (that is, enterprises with less than 10 employees) and artisan firms (Longoni and Rinaldi, 2008; Schilirò, 2017); and second, because SMEs constitute the huge part of the Italian industrial structure (calculations from ISTAT data). Thus, it is possible to affirm that Italian SMEs, most of all when embedded in industrial districts, are at the basis of the success of 'Made in Italy' (Fortis, 2007; Fortis, 2016).

Many scholars have analyzed competitiveness in relation to 'Made in Italy', but the success of Italian SMEs (as highlighted above, at the heart of 'Made in Italy') is not completely clear:

"As is well known, the long standing success of Italian exports was a puzzle. According to the Balassa indices, Italy is the only large OECD country still specialized in the export of "traditional" goods like textiles, clothing, furniture, shoes, jewellery, and so on, as well as

mechanical equipment directly involved in the production cycle of these. This goes back to the 1970s at least" (Ninni et al., 2006: 8).

A peculiar aspect of 'Made in Italy' is that most Italian firms do not operate in major sectors or in sectors where scale-economies or science supremacy are critical success factors. In fact, many of them present significant strengths about (for example) technology or brand, with an extraordinary influence on exportations. This is particularly true for the most successful sectors of the Italian internationalization (3Fs: Food, Fashion, and Furniture), showing a strong conceptual link with handicraft and the consequent development of specialized areas (e.g., industrial districts).

Most probably, 'Made in Italy' products can be considered as complex commodities (Esposito, 2005), in which there is a mix of aspects connected to style, design, organization, and most of all culture of the territory of origin of the production. This process about the 'socialization' of products and productions is presumably one of the winning factors of 'Made in Italy', also considering that Becattini (1998) underlines that Italy has had several shortages about industries characterized by capital and technology intensity, while major competitive advantages have been achieved in lightly intensive production processes. In such socialization contexts, emerge certainly external economies of production, with socio-economic benefit for the territory, but also internal economies of production if considering not the single firm, but rather the overall network/aggregation/district (Asheim, 1996; Rabellotti, 1997; Whitford, 2001; Belso-Martínez et al., 2011; Diez-Vial and Fernández-Olmos, 2014; Nicotra et al., 2018).

In fact, 'Made in Italy' products are usually realized for small niches, which, although small, are often more competitive than what similar conditions could suggest. However, precisely because of their size, too small to justify higher investments, these niches remain prerogatives of SMEs, which, in turn, are capable also to generate innovations to adapt their business to new trends (Guercini, 2004; Schilirò, 2011; Bertoli and Resciniti, 2012).

According to Becattini (1998) these capabilities are possible also thanks to i) the diffused flowing of Italian SMES in industrial districts, and ii) the consequent agglomerations of Italian SMEs in specific supply-chain-organized productions (Pironti et al., 2010) that ensure an extraordinary competitive advantage to 'Made in Italy'. Such dimensions, naturally together with other ones, contribute to that Italian territorial capitalism that could arise as critical for the international success of 'Made in Italy' (Bonomi, 2006a; Celaschi et al., 2009; Gaddi and Dell'Acqua Bellavitis, 2010).

Glocalism, internationalization forms, and the SMEs

In recent years, the idea of *places* (national, sub-national, and local entities of a territorial configuration) has begun to interact with the concept of *flows* (goods, services, capitals, people, and knowledge) that traverse them. Moreover, such places have also begun to interconnect, establishing

and developing networks and alliances (Bressi, 2003). To this end, the meaning of territorial economy, not only as concerns boundaries, but also as concerns values, principles, and cultures, has achieved salience, enhancing the connection of local actors' activities with the institutional, social, and anthropological elements of a specific place. This innovative conception of territory has been highlighted by the diffusion of 'glocalism' (Bauman, 2005), which can be intended as "... an alternative view, allowing description of the conjunction between de-territorializing processes and the territorial reconfiguration determined by globalization" (Salone, 2013: 208).

From an economic point of view, glocalism has favored also the development of new forms of internationalization that interact side-by-side with more traditional ones. In the global context, in fact, internationalization processes, at the beginning considered as an élite phenomenon, have now become a mass phenomenon, with globalization interesting not only large-scale multinational companies, but potentially every firm, and then, also SMEs (Julien et al., 1994; Audretsch, 2003; Nummela, 2004; Lee et al., 2012; Foghani et al., 2017).

As previously discussed, for SMEs the territory can assume a strategic role, from a proactive and not only limiting point of view. This dynamics is possible because the concept of territory has evolved from a strictly physical and geographical meaning, to an approach that enhances also if not most of all the related intangible resources. These can be imagined as the social capital that arises from the territorial combination of values, cultures, organization, knowledge, creativity, and so on (Wojan et al., 2007; Camagni and Capello, 2009; Storper and Scott, 2009; Camagni, 2017; Clarke and Gholamshahi, 2018).

Therefore, the local context becomes an *open system* of relationships for the production and diffusion of social capital. This can emerge as the essential differential factor for a territory and most of all for the entrepreneurship that is present in, working as an inextricable *milieu*, which continuously takes-in and takes-out pieces of local, but even global, knowledge (Tregear and Cooper, 2016; Trippel et al., 2017; García-Villaverde et al., 2018).

In this local-global evolution, a fluid connection inevitably exists between traditional competitive strategies on one side (cost leadership, differentiation, focus, and service leadership: Porter, 1985; Sciarelli, 2017) and traditional internationalization strategies on the other one (export, holding, global, and transnational: Valdani and Bertoli, 2014), mainly thanks to economies of knowledge and relationship (see Figure 1). In this complexity, the glocal environment operates not only in the form of a generic availability of technical intangibles (competence, experience, proximity, and so on), but also as the development of reciprocal and pragmatic interactions of territorial social capital (affinity, trust, cooperation, and so on) (Pizzorno, 1999). Figure 1 illustrates the positioning, within the traditional

schemes of international competition strategies, of the most likely international competition models for 'Made in Italy', focused on quality, peculiarity, and reputation of a specific territorial capital.

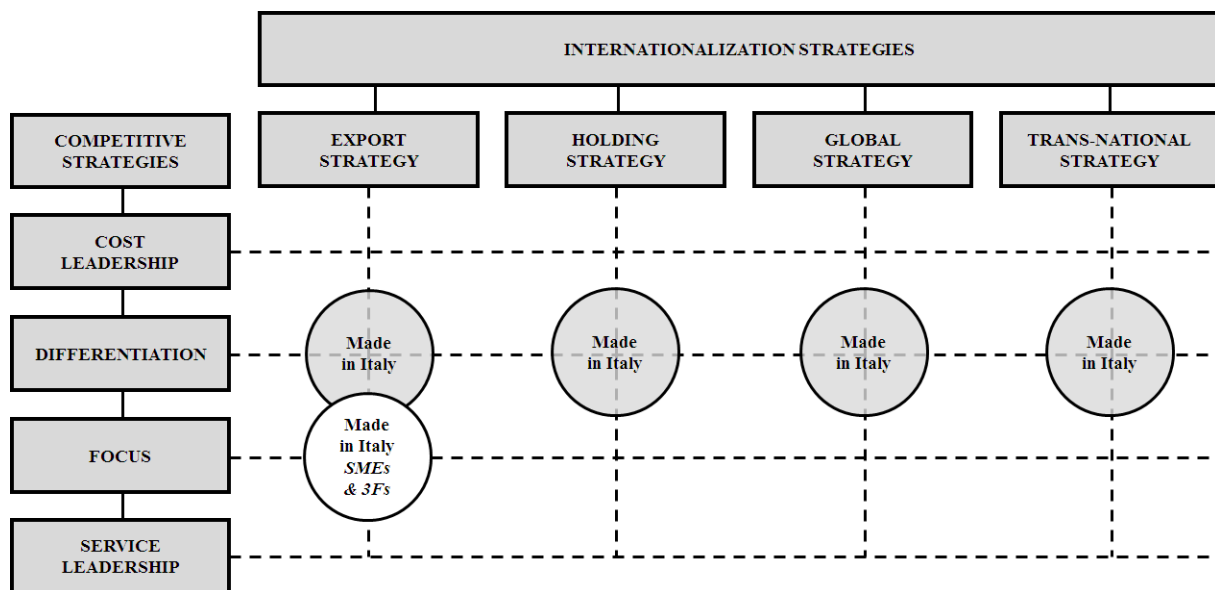


Figure 1 - 'Made in Italy' in internationalization models (authors' elaboration from Porter, 1985; Valdani and Bertoli, 2014; and Sciarelli, 2017).

The above represented strategic categories (most of all, focus for export, and more in general, differentiation for all the others) are appropriate in particular for an Italian industrial system, whose main characteristic is an entrepreneurial structure with the presence above all of micro, small, and medium enterprises. In fact, national statistical data highlight that in 2015 in Italy only 3,666 of 4,338,085 are large enterprises (0,08%), while 21,256 are medium (0,49%), 176,332 are small (4,06%), and 4,136,831 are micro (95,36%) (calculations from ISTAT data). These entities are increasingly adopting various models of development that are more sensitive to 'making global' the territorial knowledge of 'Made in Italy' (Cooke et al., 2011; Strambach, 2012). Such *milieu* influences material, but even immaterial, assets, in association with territorial, social, and economic flows, whose propagation, even outside a geographic area, connects all the operators along a 'shared' supply chain, from a cultural, organizational, and entrepreneurial point of view (Rullani, 2006).

Consequently, the internationalization process that runs along the nodes of such networks is a dynamic cognitive phenomenon that does not encounter barriers with physical nature. The peculiarity of a territory can move in a transnational space, effectively allowing enterprises to reside in their own notional or conceptual 'territory of origin' whilst turning their vision towards more and more far horizons (Lash and Urry, 1994). In this expansion of their spaces of action, enterprises move knowledge along the pipelines of the suppliers-customers chains, or along their available communication channels (Rullani, 2006; Del Giudice, 2014; Castro, 2015). Thus, they are able to create networks, aggregations, and even industrial districts, which Italy is renowned about (Goodman et al., 1989; Schmitz and Musyck, 1994; Rabellotti, 1995; Asheim, 1996; Chiarvesio et al., 2010). These new

industrialization and internationalization models have facilitated the introduction of processes that promote the sharing of knowledge among all local actors in a given 'place', activating further processes of social modernization and technological innovation (Bencardino, 1997), in conjunction with the valorization of local productive resources and endogenous entrepreneurial qualities (De Rita and Bonomi, 1998, Camagni, 1999; Trigilia, 2005).

The territorial social capital in business competition

In the knowledge-based economy, combinations of factors such as society, culture, people, communities, and enterprises have a direct role to play in the patrimony of local competences that, expanding environmental boundaries, can generate forms of bottom-up development (Bonomi, 2002; Moulaert and Sekia, 2003; Crevoisier and Jeannerat, 2009). In relation to an ever more intense competition, territory is not a secondary element for entrepreneurship, becoming an active strength that can influence local, national, and international competitiveness (Guatri and Vicari, 1994; Camagni, 2002; Dicken and Malmberg, 2009).

The concept of territory as a competitive device plays an active function in incremental processes of knowledge building, and moves along two main guidelines (Rullani, 2004). First, as a repository of localized knowledge sharable by several stakeholders; and second, as a catalyst for locally produced externalities based on the sharing of local contexts, symbols, and codes that are implicit in that peculiar territorial *milieu*.

In fact, the patrimony of tangibles (morphology, natural resources, infrastructures, and so on) and intangibles (shared values, quality of life, reputation, and so on) of a territory expresses specific determinants that can contribute hugely to the success in the international competition (for example, proximity efficiency, local services, and contextual skills). These factors evidently influence the productivity capabilities and the differentiation abilities as competitive factors (Caroli, 2006).

The territorial patrimony of tangibles and intangibles appears strategically decisive for Italian entrepreneurship. It is well known that the reputation of 'Made in Italy' at international level derives most of all from human factors (e.g., the 'Italian design genius'), but also from environmental factors (for example, the leather industry of Valdarno Superiore - Tuscany, the jewellery industry of Valenza - Piedmont, the glasses industry of Belluno - Veneto, and so on).

Thus, combining the traditional and innovative categories of internationalization strategies with the evidence of the success of 'Made in Italy' in specialized, but also territorially rooted, productions, an important consequence should be clear. In international competition, ever more complex with the emersion of new and vast economic regions, competitive advantages for SMEs, particularly in the case of 'Made in Italy', depend not only on specific firm resources, but also from territorial resources, both tangible and intangible.

Naturally, the approach of Italian SMEs to territory is not univocal. Some invest in the strong identity of their own territory as a system of peculiar resources, relationships, and knowledge (Cedrola, 2005). Others enhance it, in relation to internationalization processes specifically, by developing direct and/or indirect exportation with many collaborations in the local and potentially international value chain (Cantù and Gavinelli, 2008).

Focusing specifically on territorial capital as a competitive factor, in the scientific literature there are several considerations focusing on what are 'real territorial resource' (Becattini, 1989; Becattini and Rullani, 1993; Becattini, 1999). As intangible resource, territorial capital is a 'relational good' wherein the territory is formed as an organizational system of local actors who invest on local cognitive patrimony (Vespasiano, 2005). Assonance with the concept of social capital (Coleman, 1990; Putnam, 2000; Trigilia, 2005) evidently arises, arriving at developing the concept of 'territorial social capital' (Celata and Coletti, 2014; Hvižďáková and Urbančíková, 2014, Sansone et al., 2015; Obrecht, 2016; Romano et al., 2017).

This concept refers to the overall set of social relations that exist over a specific territory. Thus, it is not an element available for transfer from a territory to another one, because this kind of capital is strictly typical of that specific territory, and obviously, each territory is different from another one. Moreover, this condition is even truer for Italy, where territorial differences, considering the 'global' cultural dimension of the different areas of the country, are largely diffused.

RESEARCH OBJECTIVE AND METHODOLOGY

Starting from the above premises, the research aim at highlighting the possible contribution of territorial social capital – potentially embedded in the global set of intangible entrepreneurial resources – to the success of 'Made in Italy' on international markets, especially for SMEs. The specific research question is the following: «Is territorial social capital a discriminant competitive factor for the international performance of SMEs active on 'Made in Italy' markets?».

The discriminant variable for the analysis is exportation, commonly used for measuring the success of the international performance of SMEs (Lu and Beamish, 2001; Fernández and Nieto, 2005; Zucchella and Siano, 2014), whose prevalence will give answer to the question research. The adopted methodology is quantitative, descriptive, both cross-sectional and longitudinal, so to highlight differences in space (global exportation or industrial districts exportation) and time (globally speaking, from 2008 to 2017).

EMPIRICAL HIGHLIGHTS FROM THE FIELD

To get evidence from the real economy about the role of territory in the success of 'Made in Italy' on international markets, a summary overview of focused data can give a useful contribution. In the following synoptic representation (see Figure 2), several pieces of information, summoned up by different sources into a global framework, highlight the key importance of 'industrial districts' in the Italian economy, with consequent specific considerations on their connection to 'Made in Italy' exportation.

In fact, in our reasoning two fundamental aspects seem noteworthy. First, "... industrial districts are socio-territorial entities constituted by a community of enterprises and people, as well as by territorial relations and socio-economic ties that such co-presence generates. These companies belong mainly to the same sector of economic activity, which defines its main industry, and are characterized by small and medium size" (our translation from ISTAT, 2015). The so-called "territorial relations and socio-economic ties" qualify without doubt the essence of territorial social capital.

Second, the main part of the acknowledged Italian industrial districts (by the law, and they can change over time) concerns 'Made in Italy' (130 over 141, according to ISTAT, *ibidem*). Thus, from our point of view industrial districts are a considerable object of investigation for a coherent analysis that combines territorial social capital and 'Made in Italy'.

Unfortunately, at least through normal availability or even more to the best of our knowledge, no detailed data are available for analytical comparison between dynamics of Italian global exportations and Italian exportations of 'Made in Italy' from Italian industrial districts. Thus, we have produced an overall representation that combines and compares different data from different sources in different times, in our opinion however achieving satisfying and replicable investigations.

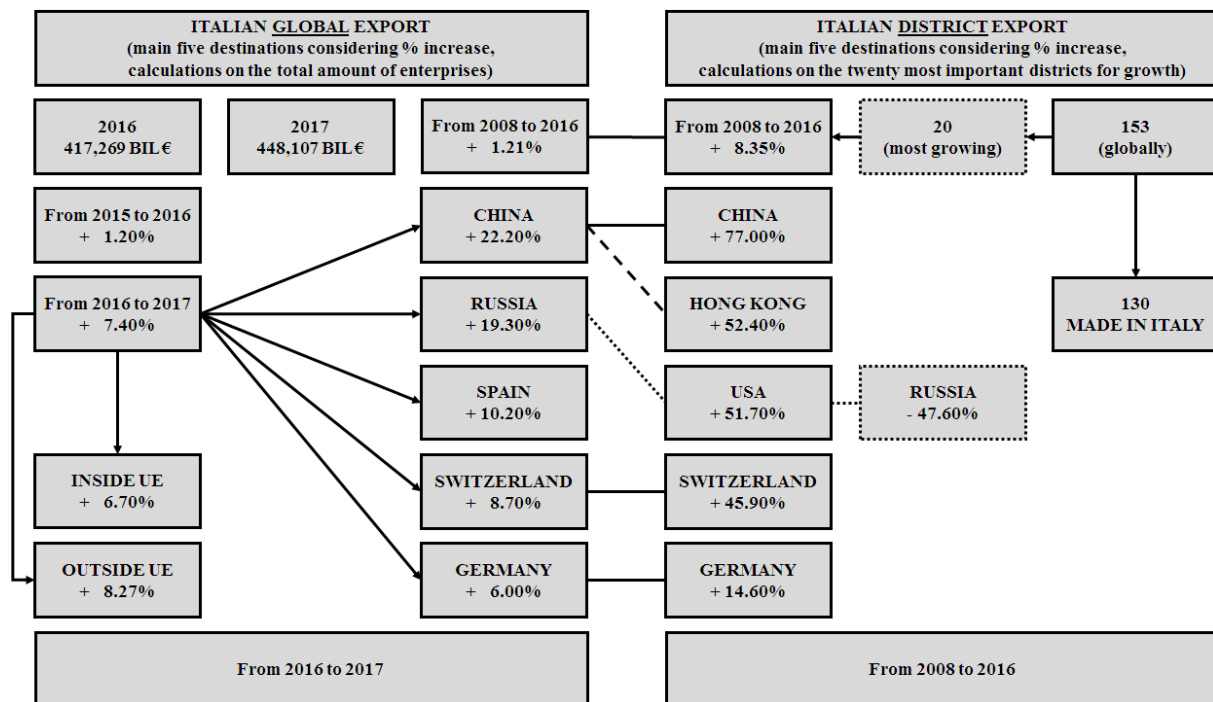


Figure 2. Analysis and comparison of export from Italy (2008 - 2016 and 2016 - 2017). Authors' elaboration. Data from ISTAT (2008); ISTAT (2015); Intesa-Sanpaolo (2018); MISE (2018); and Padua Chamber of Commerce (2018).

At least two evidences emerge clearly from the analysis. First, Italian industrial districts are mainly based on 'Made in Italy' productions, considering that the industrial districts representing 'Made in Italy' are 130 (Istat, 2015) over 153 (Intesa Sanpaolo, 2018), at least from the used databases; this is particularly true for the 20 most growing industrial districts (*ibidem*). Second, the orientation to export of Italian industrial districts in the period from 2008 to 2016 is major than the orientation to export of Italian enterprises considered altogether ($8.35 > 1.21$). Naturally, the bias related to the different basis of calculations (8.35% only considering the 20 most growing industrial districts) can distort a coherent comparison, but two considerations seem useful. First, it is the only available comparison (always at the best of our knowledge), and second, it is an even more interesting value if compared with the increase rate of Italian GDP, which is 3.32% if considering 2016 on 2008, and only 0.51% if considering an average rate from 2008 to 2016 (see Table 1).

Italy	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP (USD Billion) (*)	2,203.0 0	2,391.0 0	2,185.0 0	2,125.0 0	2,276.0 0	2,073.0 0	2,130.0 0	2,152.0 0	1,833.0 0	1,859.0 0
€ / \$ (**)	1.37	1.47	1.39	1.33	1.39	1.29	1.33	1.33	1.11	1.11
GDP (EUR Billion)	1,606.8 6	1,625.4 2	1,568.5 6	1,601.3 6	1,635.0 6	1,611.9 8	1,603.9 2	1,619.2 6	1,651.3 5	1,679.3 1
Year on Year Increase Rate	-	1,16%	-3.50%	2.09%	2.10%	-1.41%	-0.50%	0.96%	1.98%	1.69%
From 2008 to 2016 Average Increase	0.51%									
2016 on 2008 Increase Rate	3.32%									

Table 1. Evolution of Italian GDP from 2008 to 2016 (Billions). Source: authors' elaboration. (*) World Bank. () Padua Chamber of Commerce (Italy).**

In other words, even though with all above mentioned limits, Italian industrial districts focusing on 'Made in Italy', in the period under analysis, have been growing much faster than the rest of the Italian economy. Thus, considering other conditions as equal, it is quite likely that their competitiveness could be due to the territorial capitalism underlying their global functioning, allowing answering "yes" to the fundamental research question of this study.

From the research, confirmation of previous studies arises with reference to the following aspects. Necessity/opportunity of collaboration among SMEs (most of all during the recent financial and economic crisis); evidence of 'Made in Italy' as glocal competence (still popular on foreign markets); and internationalization success of focused organizational aggregations (20 most growing Italian industrial districts) versus general productions (Italian global economy). Specific contribution of the research is the consideration of territorial social capital not only as source of intangible resources for the enterprises of the territory (thanks to their relational capital), but also as strategic component of the structural capital of further level entrepreneurial aggregations (e.g., industrial districts). This double meaning should be fruitful most of all, if not exclusively, in presence of strong personality, identity, and image of these entrepreneurial aggregations (e.g., 'Made in Italy').

RESEARCH LIMITS AND FUTURE DIRECTIONS

The quantitative section of the research uses secondary data that unfortunately are not directly comparable, because their extraction derives from databases that refer to different time intervals. This limit is due to the lack of authoritative secondary data on export performances of industrial districts that focus in particular on 'Made in Italy' – naturally, to the best of our knowledge. In fact, the different institutional reports normally available insist on specific objectives of investigation, without

allowing building a general overview on this specific topic. However, the main finality of the research, which is the evidence of the competitiveness of territory-based capitalisms through the example of industrial districts for 'Made in Italy', has clearly emerged.

About possible development of the research, one of the most intriguing future direction could be the investigation upon the 'spider' metaphor. In fact, a possible challenge for an enterprise active in the 'Made in Italy' competition is to become 'fly' or 'spider' (Bonomi, 2006b). A 'fly' perspective is substantially a transactional perspective, focused on adding production, distribution, and communication value from partners and markets to the commercial offer. Instead, a 'spider' perspective is substantially a relational perspective, focused on co-creating value into the global offer with partners and markets.

Accordingly, the 'spider' metaphor could be applicable not only to enterprises, but also to districts and even to territories, but only under condition to evolve in the direction of a system that integrates enterprises, districts, and territories into a peculiar network of resources, connections, competences, values, and cultures (Saviolo, 2004). Clearly, this ambition requires also a fundamental participation of the governmental institutions that must supply all the political incentives to enhance the various talents of the territory.

SCIENTIFIC AND MANAGERIAL IMPLICATIONS

From a scientific point of view, territory emerges ever more as an asset for corporate social capital, not only when well recognized (in domestic markets), but also when far from a cultural angle (in global markets). Naturally, this is even truer both from a technical perspective (for example, industrial districts with all their business connections) and from a symbolic perspective (for example, the reputational power of 'Made in Italy').

From a managerial point of view, professionals, managers, and entrepreneurs, most of all of micro, small, or medium enterprises focused on 'Made in Italy', must pay ever more attention to overall relationships with the territory. In fact, they should consider not only its structural strengths (transportation, logistics, organization, and so on), but also its reputational potential, as territorial social capital, in domestic and foreign markets. Naturally, this potential is due also to the interactions of the same firm with the territory, taking reputation from a 'halo' effect in a top-down perspective, and giving reputation from a 'synthesis' effect in a bottom-up perspective.

CONCLUSION

During recent decades, the evolution from an economy based on simple production to an economy based on complex interactions is demanding a renewal of business development models, causing

crises for those enterprises that are not able to overcome standardized production rules (Rullani, 2004). In the specific case of Italy, a focus on high success productions has highlighted that 'Made in Italy' – for Italian enterprises, but unfortunately also for those enterprises active on unfair practices of 'Italian sounding' – can provide a strong reputation-based platform for competing in global markets, mainly through differentiation or focus strategies, and even for SMEs.

In these scenarios, the specific value of Italian productions throughout the world is due to a strong sense of territorial imagination. This perception involves both a general territory ('Italy' as reputational capital), with the social capacity to evoke positive emotions and to imprint its products through customs, life-style, and globally speaking, culture (Imperatori, 2007), and a specific territory (e.g., the industrial districts), with the social capacity to activate structural and relational resources. Naturally, knowledge networks on the territory play a key role in the concept of territorial social capital (Cantù and Gavinelli, 2008), enabling traditional and innovative interactions inside and outside enterprises, and along value chains, supply chains, business networks, and then, inside and outside specific territories (Schmitz and Knorringa, 2000).

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WAYS TO INCREASE THE EUROPEAN FUNDS ABSORPTION AND CONTRIBUTION TO A SMART, SUSTAINABLE AND INCLUSIVE ECONOMY. THE CASE OF ROMANIA

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ABSTRACT

This paper presents an analysis of the fact regarding the way in which, aware of the causes that led to a low absorption rate in the previous programming period, it is possible to act through the measures that will be taken so that during the programming period 2014 -2020 to avoid the dysfunctions found in the previous period and Romania to enjoy an increase in the absorption of European funds, the objective being to participate alongside the other national measures in order to achieve a smart, sustainable and inclusive economy.

Given that Romania is trying to ensure good governance in conjunction with the reduction of regional disparities, the proposed measures have been aimed at reducing regional disparities through complementary use of funds so that all instruments lead to the same objective, namely to increase smart, sustainable and inclusive growth across Romania.

At the same time, the paper will also present innovative financing tools introduced to support local /regional development, respectively Local Development under Community Responsibility (LDCR), Integrated Territorial Investments (ITI), how they will be applied and the expected effects. Last but not least, the impact that actions, approaches by decision-makers can have on the evolution of the economy can be presented.

The paper develops firstly the current context of the funds allocation for Romania for the 2014-2020 programming period and continues with the presentation of the measures identified to be applied during this programming period outlining in the last part the expected results leading to transform the country into an inclusive economy.

Keywords: smart, sustainable and inclusive economy, innovative financing tools, good governance.

INTRODUCTION

The analysis of the absorption rate of funds, allocated by the European Commission for the emerging country during the 2007-2013, outlines (2014) that Romania is ranked among the last countries that didn't know the benefit of the advantages provided and didn't access enough funds to change the image of its society. The European Union reports mentions different causes identified, such as: a dramatically reduced number of proposal submitted and projects contracted, serious delays identified in the project implementation that caused the funds reimbursement, an insufficient training of both specialists called for the implementation of the projects and companies' representatives involved in the activity of submitting proposals and monitoring the works' development, the lack of timely information of the beneficiaries, the lack of a financial flow allowing the timely reimbursement of the eligible expenditures made by the beneficiaries. The politicians' decision transformed into measures of acceleration the spending rate of the European funds, if well understood and put in practice, could contribute to increasing the absorption rate to 72.5% by the end of 2020 and will cover the 100% by 2023.

Romania was the 11th signatory state member of the 28s with which the European Commission signed the Partnership Agreement, in August 2014. The framework documents set the financial allocation at 31 billion Euros of the Structural and Investment Funds (FESI) for the coming years, starting with 2014 until 2023.

The purpose of the funds allocated is to create the premises for Romania to be able to cope with the medium and long-term development and challenges and to contribute to the reduction of the regional and social disparities that still exist in Romania. This can happen by:

- stimulating the activities of innovation and the enterprises' competitiveness,
- stimulating the growth and the job creation,
- investing in human capital and supporting the access of the population to the labor market, as well as improving its skills
- improving the performance of the research and innovation system, including the quality of higher education
- developing the agricultural potential, at present highly concentrated on activities with low added value,
- supporting the process of restructures the agricultural holdings and providing the necessary workforce in other competitive sectors.

LITERATURE REVIEW

The analysis of the socio-economic context within the Member States, according to the European Commission Report outlines the major role of employment and social developments assistance for the evolution of the economic and societal development. (EC, 2014). There ways these areas benefit of development have been monitored and, despite the progress made, plenty of problems have been identified and retained for the general attention. The reports conclusions are obvious: the labor market need structural and modern transformations to be able to integrate a growing number of people. The recommendations state clearly the need to support the vocational education and training to reduce the unemployment rate and improve the public services, bring guarantees for young people, and modernize all forms of education (formal, informal, alternative).

The common employment report captures the social and labor market trends and challenges and proposes to the Member States measures and employment indicators to eliminate the identified risks regarding the labor market and social trends by increasing accountability and better involvement by all stakeholders, including the social partners.

At the same time, the Commission recommended pursuing an economic and social policy based on three main pillars: boosting investment, renewing commitment to structural reforms and ensuring budgetary accountability.

In terms of employability and social inclusion, the EU has monitored the implementation of the social and structural reforms on the labor market undertaken by the Member States. In the field of employment and social affairs, the European Commission has urged the Member States to identify the opportunity to apply the youth guarantee as one of the priorities and urgent measures, being one of the measures proposed to reduce youth unemployment. To increase the young people employment and diminish the scholars' abandon, the European Commission has recommended the Member States to step up their efforts to reduce unemployment through active labor market measures, strengthening public employment services and supporting training and apprenticeship systems.

The youth guarantee was one of the most important and urgent structural reform measures the Member States have taken to tackle youth unemployment and to improve the transition from school to work. This measure aimed at providing the possibility of having a quality job, continuous education programs, apprenticeships or internship within 4 months of graduating from the school or from joining the unemployed young people up to 25 years old. In order to identify the estimated results and avoid future costs with this disadvantaged category, the

Member States have taken firm steps to implement the youth guarantee. For this purpose, the necessary amounts of money were allocated to national budgets for this mechanism, with the EU completing the Member States' expenditure through The European Social Fund and The Youth Employment Initiative with an allocation of EUR 6 billion.

Analyzing the impact this initiative has had in three years since the Youth Guarantee, it has been found that the functioning of the labor market for young people has improved significantly. In this respect, from the European Commission's statistics it can be stated that over the three years:

- the number of unemployed young people has dropped by 1.5 million, while the number of young people who are not professionally trained and who do not have any education or training program has fallen by 900 000;
- the youth unemployment fell from 24.4% in the first quarter of 2013 to 18.9% in the second quarter of 2016;
- the percentage of young people aged 15-24 who are not professionally employed and do not have any education or training dropped from 13.2% in 2012 to 12% in 2015. Even if these trends have to be interpreted taking into account the cyclicity of certain factors; the Youth Guarantee accelerates the progress by giving young people more chances.

Taking into account the need to continue reforming the labor market insertion of the youth and reducing the youth unemployment during the 2014-2020 programming, funds have been allocated to reduce the youth unemployment through the European Social Fund (Euros 12 billion annually) and the Youth Employment Initiative (Euros 6.4 billion for 2014-2020). The ESF will support the fight against the youth unemployment, 68% of the budget being allocated to the youth projects.

Another agreed mechanism for their integration into the labor market is the youth employment initiative targeting the young people who do not work and do not attend any education or training program in regions where the unemployment rate of young people was over 25%. This initiative seeks to help young people directly by creating jobs, providing internships and apprenticeships, and supporting start-ups.

The 2014-2020 Partnership Agreement (FED) comprises five European Structural Funds and European Investment Funds (ESI funds): the European Fund for Regional Development (ERDF), the Fund for Cohesion (CF), the European Social Fund (ESF) the European Fund for Agriculture and Rural Development (EAFRD)) and the European Fund for Marine and Fisheries (EMFF) in line with the specific strategic objectives goals and activities adopted by the European Commission for this running period.

.The amount of funds earmarked for these programs over the period 2014-2020 is as follows:

- € 22.4 billion under Cohesion Policy (ERDF, ESF, Cohesion Fund);
- € 106 million from the Youth Employment Initiative (together with an identical allocation from the ESF);
- € 168 million were approved for the EMFF Program (EC, 2014).

The purpose of allocating these funds is to provide Romania with the capacity to cope with medium and long-term development challenges, reduce existing regional and social disparities in Romania, provide viable solutions to social challenges and fight against poverty. In this respect, among the priorities identified in the PA, an essential role is to direct investments to innovation and competitiveness in enterprises, to stimulate cooperation with the business sector and private investment to increase their added value, to stimulate the growth and create jobs, developing human capital by increasing the employment rate among graduates.

Investments in these areas will be essential to help Romania, on the one hand, implement country-specific recommendations in line with reforms in the sectors concerned and, on the other hand, respond to the priorities of the Europe 2020 Strategy.

METHODOLOGY

When analyzing the present social context in Romania where social problems are strongly present in the socio economic environment where unemployment is quite high, the problems faced by the persons who are in a vulnerable group are easily visible and easy to identify. For example, they live in poverty; most of them are unemployed or work without official documents, have a low self-esteem, are not benefiting of social insurance and have great difficulties in finding a place to work. They do not stay too long in a job because those who live on the minimal income have little or no competences at all

The lack of competences of the people who come from vulnerable groups make it almost impossible for them to stay in a long-term job. At a regional but also a national level there is a lack of structures which can offer assistance to vulnerable groups, no matter the category they belong to, structures which should assist these persons in order to help them find a job. The economic crisis, the reform in the social assistance, as well as the poor budgets has contributed to the persistency of these problems.

The lack of budgets and that of instruments capable of facilitating the socio professional insertion of these people from the vulnerable groups will never add value in their lives.

Entrepreneurship is considered to be a form of professional insertion which can add a considerable amount of added value in economy. Social entrepreneurship is a much promoted solution in the EU and is regarded as a sustainable solution for creating some instruments capable to promote social economy and to facilitate the long term professional insertion of the persons who come from vulnerable groups.

The suggested solution is to create a sustainable structure which can give them a set of competences both from the business zone and the social zone which can facilitate the professional insertion of the persons who come from vulnerable groups. The solution can be considered as being adapted to the present socio-economic situation and can be considered as an answer to the imperfections of the economic systems and as a possible contribution to the decrease of social inequities.

RESULTS

Analyzing the socio-economic context corroborated with the identified results and the evolution of Romania as a result of accessing and using the funds made available by the European Commission during 2007-2013 the programming period, Romania, by the measures it has undertaken, will support the achievement of the objectives established in other development challenges - competitiveness, infrastructure, administration and governance and will contribute to achieving the objectives of the Europe 2020 Strategy for smart, sustainable and inclusive growth.

Under the Partnership Agreement (2014-2020 PA), the Human Capital Operational Program (HCOP) is the operational program that sets out the investment priorities, specific objectives and actions undertaken by Romania in the field of human resources. In order to meet Romania's objectives in the context of the Europe 2020 Strategy for smart, sustainable and inclusive growth, the HCOP comes with proposals that respond to real and immediate needs as well as to medium and long term interventions in the field of social inclusion and combating discrimination by:

- ensuring the availability of a work-ready workforce that responds to the growing needs of the business environment;
- increasing the employment rate in all regions of Romania, especially among young people;
- setting up new businesses and social enterprises, especially in less developed regions and in rural areas, in order to help alleviate poverty and social exclusion;

- creating the legal framework for correlating the education system with the needs of the labor market;
- providing training / retraining courses to provide participants with the basic knowledge and skills essential to participation in social life, as well as the skills and abilities needed to get a job;
- encouraging lifelong learning, contributing to prolonging active life, increasing the labor market opportunities and, in general, ensuring a better quality of life;
- supporting young unemployed aged 16-24, registered with the Public Employment Service to support the employment growth;
- supporting the vulnerable groups (unemployed and inactive people, elderly workers (55-64 years old), people from the Rom minority, people with disabilities, people with low levels of education, people in the environment for the employment growth;
- providing training / retraining / initiation courses to improve the skills of the unemployed and inactive, elderly workers (55-64 years), Roma people, individuals with disabilities or with a low degree of education, those registered under social and professional (re)integration to improve their knowledge and acquired competences to get employed;
- supporting employment by stimulating entrepreneurship and business start-ups, developing the social economy and promoting the social entrepreneurship;
- supporting the enterprises in order to respond to the changes in the business environment, taking into account the priority sectors with competitive potential identified according to the National Competitiveness Strategy and the National Strategy for Research, Development and Innovation;
- ensuring integrated measures to reduce the number of people at risk of poverty and social exclusion. (EU Strategy for 2020).

CONCLUSION

In the context of the changes made in the last decades and taking into consideration the structure of society, there was identified the need to intervene in the field of social, economic, political organization through the formulation of new policies and strategies of governance at local, regional and national level, realistically adaptable to the new social phenomena identified.

In this respect, the analysis of all the non-profit establishments and the correlation of their activity with that of the public sector, identified the necessity of adapting the legislative

framework that will allow the approach of new areas of interest such as the development of the culture of social entrepreneurship by introducing new legal forms for the social economy structures and defining the legal framework for their functioning. Investing in human capital and supporting the access of the population to the labor market, as well as improving its skills will be one of the main priorities of Romania.

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- <http://ec.europa.eu/esf/home.jsp?langId=en>.
- <http://ec.europa.eu/social/main.jsp?catId=1176&langId=en>.

IRRADIATED FOODS BETWEEN CONCERN AND ACCEPTANCE IN THE ITALIAN MARKET

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ABSTRACT

Consumers have always shown a marked concern for the novel technologies. The treatment of foods with ionizing radiation, not entirely new, has always been a major concern among consumers for the impact that the consumption of treated food could have on health. The aim of this paper is to investigate Italian consumer attitudes towards the irradiated food and in particular the perceived risk and the acceptability of these technology. A survey was carried out in Italy by administering an on-line questionnaire to a sample of 392 consumers. The results of the study highlight a low level of knowledge of food irradiation, often associated with nuclear radiation and doubts about the effect that the consumption of irradiated food can have on human health. Moreover, there is a marked need, expressed by interviewees, to acquire more information on the technology and the benefits that can be obtained. This study has some political, managerial and ethical implications.

Keywords: Food irradiation, Attitudes, Food safety, Consumer behavior, Novel technologies.

INTRODUCTION

In recent years, several case of food contamination of food, such as dioxins and BSE, have negatively affected the consumers' behavior and have resulted in a major loss of confidence in food products, resulting in a contraction of the demand (Rosati and Saba, 2004). To respond to the need of food safety, many processing methods have been developed for example to prevent food spoilage and raise safety by providing better guarantee to the consumers, among these drying, smoking, salting, pasteurization, canning, freezing, refrigeration, chemical preservatives, and food irradiation (Agrios, 2005).

Food irradiation is a physical treatment of food with energy ionizing radiation, that produces the same benefits as when it is processed by heat, refrigeration, freezing, ore treatments with chemicals (Parlato et al., 2014). The process is useful to improve food safety, inactivating micro-organisms, virus, bacteria and insects, increase food security, reducing the speed of ripening, spouting and aging of fruits and vegetables contributing to reduce food losses and wastage, and offer an opportunity as

phytosanitary treatment for food moving across international or national borders (Lima Filho, 2016; Parlato et al., 2014; Roberts, 2014; Fan and Sommers, 2013).

The multiple benefits of food irradiation have been recognized by international bodies (World Health Organization, Food and Agricultural Organization, International Atomic Energy Agency), but the commercial application of this technology is still limited because of potential risks perceived by consumers. In particular, food irradiation technology is particularly widespread in the United States and in several Asiatic countries (Eustice, 2018). In the European Union (EU) the use of this method, regulated by the Directive 1999/2/CE of the European Parliament and of the Council of 22 February 1999, is very uncommon as emerge by the small quantity of foodstuff irradiated in the year 2015 in the EU countries, which amount to 5,685.9 tons (EU, 2016). The main raisons of the low utilization of the food irradiation technology in the EU countries is the lack of proper knowledge of such technology among consumers, processors and distributors. As emphasized by Nayga et al (2005) the awareness about the nature and benefit of food irradiation led to positive changes in consumers' perception affecting their decision to buy irradiated food.

In this context takes on fundamental importance the learning of the level of knowledge and consumers' acceptance of food products treated with ionizing radiation taking into account that the understanding of the benefits produces and the acceptability of this food technology is crucial for the development and strengthening of the same process in the food industry. Whit this in mind, the aim of this paper is to investigate Italian consumers attitudes towards the irradiated food and in particular the perceived risk and the acceptability of these products.

LITERATURE REVIEW

The consumer acceptance of novel food technologies or new products and the public perception of risk and trust in information associated to theme may be important discriminants of consumer reaction and are crucial for the assertion of these innovations. Analyzing a range of food technologies, emerging worldwide in food production, processing and preservation, several authors show that not all of these are equally accepted by consumers (Frewer et al., 2011; Siegrist, 2008). Among the novel food technologies, food irradiation has drawn attention of scientist and several studies have been conducted to explain through empirical evidences the consumer awareness and concerns about irradiated foods showing different results. These studies have been mainly focused on the analysis of the consumer knowledge, opinions, neophobia, thoughts related to food treated with ionizing radiation. As emerge from the economic literature, consumers' knowledge about the irradiation technology depend on several factors both demographics and related to the geographical area in which the consumers live. Resurreccion et al. (1995), through a direct survey conducted in the Metro-

Atlanta area in USA on a sample of 446 consumers, found that 72% of the respondents had heard of irradiation, but 87.5% of these consumers didn't know much about this technology. Similar investigations conducted in other countries show, on the contrary, that the consumers' knowledge about food irradiation is very low. Gunes and Takin (2006) for example on a sample of 444 Turkish consumers show that only 29% of them were aware of irradiation. Junqueira-Goncalves et al. (2011) found that only 33.5% of 497 consumers in Chile had heard of irradiation as a treatment for food preservation. A similar result has been obtained by Rosati and Saba (2004) in the Italian market and more recently by Lima Fihlo et al. (2016) in their empirical survey carried out in a small city located in Brazil. The lack of knowledge of the treatment of food with ionizing radiation is to be put in relation to the insufficient information about this technology, which leads to a negative perception of the irradiated products. Most consumers who do not know the process or who have little knowledge of it, show greater uncertainty about safety of the irradiated food and often believe that irradiated foods become radioactive and have harmful compounds (Resurreccion et al., 1995; Resurreccion and Galvez, 1999; Gunes and Takin, 2006; Ornellas et al., 2006; Behrens et al., 2009; Junqueira-Goncalves et al., 2011; Lima Fihlo et al., 2016). Therefore, the central role that can have a correct information on the perception and attitudes of consumers towards irradiated foods emerges. Precisely for these reasons, as pointed out by Behrens et al. (2009) the terms "Cold pasteurization" could be more widely accepted by consumers than irradiation. Therefore, the central role that can have a correct information on the perception and attitudes of consumers towards irradiated foods emerges. Indeed, as found Junqueira-Goncalves et al. (2011) almost all respondents reveal that they might become consumers of irradiated food if they would know that this process increase food safety and does not causes short term and/or long terms health problems. Consistent with those, Gunes and Takin (2006) and Pohlmann et al. (1994) highlight that after having informed the consumers about the food irradiation benefits the willingness to buy tends to increase.

Several studies show that while the willingness to pay (WTP) and the actual purchase are affected by the information related to the safety and by the handling instruction on package label and appearance, the intention to purchase is mainly influenced by the demographic characteristics. An empirical investigation conducted in Texas in 2001 on a sample of 270 consumers show that are the woman that reveal a greater WTP for irradiated beef because they consider food irradiation as an assurance of safety and quality. This finding is inconsistent with that obtained by Rimal et al. (2013) according to which woman showed a higher level of concerns about food irradiation and are less likely to buy irradiated products such as beef. In addition, studies show that educational level and the monthly family income positively affect the attitudes of consumers towards irradiated foods and the

intention to purchase (Resurreccion et al., 1993; Resurreccion et al., 1995; Gunes and Takin, 2006; Rimal et al., 2013).

An interesting thing that emerges from the economic literature about the food products treated with ionizing radiation is linked to the consumers' perception of the "Radura" symbol on the label of the marketed products. Resurreccion et al. (1995) show that 81% of the USA consumers considers the information contained in the label of great importance, although approximately half of consumers considers that the "Radura" symbol is inadequate to inform the consumers that the food has been irradiated. Furthermore, if on one hand, as emerged in the study of Junqueira-Goncalves et al. (2011), this symbol gives to the consumers the sensation of confidence and safety, on the other hand, the same is considered by consumers as a warning, influencing the willingness to pay for products treated with radiation (Nayga et al., 2004).

DATA COLLECTION AND SURVEY INSTRUMENT

A survey was carried out in Italy to analyze the attitudes of consumers living in Italy towards food treated with ionizing radiation. Data have been collected by administering an on-line questionnaire to a sample of 392 consumers. Respondents have been invited to participate to this survey through an e-mail and a message promoted through the most important consumer associations operating in Italy. Even though it is an on-line survey, the number of the respondents reflects the distribution of the resident population in all 20 Italian regional capitals.

The survey was carried out between January and March 2018. The questionnaire administered was structured in three sections. The first, includes a series of questions aimed to analyze the perceived risk of consumers related both to the novel technologies and the use of additives and others substances in the open field that feed concerns among consumers. In the second section we collect several information in order to understand the level of knowledge of irradiated food, the perceived risk associated to the consumption of food products treated with this technology, and the acceptability of these products after a brief description of the potential benefits offered by the irradiation process. Several questions were measured on a five-point Likert scale, where 1 means "Strongly disagree" and 5 "Strongly agree". Finally, the last part includes all variables concerning the socioeconomic features of the interviewees, such as age, gender, education, number of household members, employment, and monthly household net income in euros.

RESULTS AND DISCUSSION

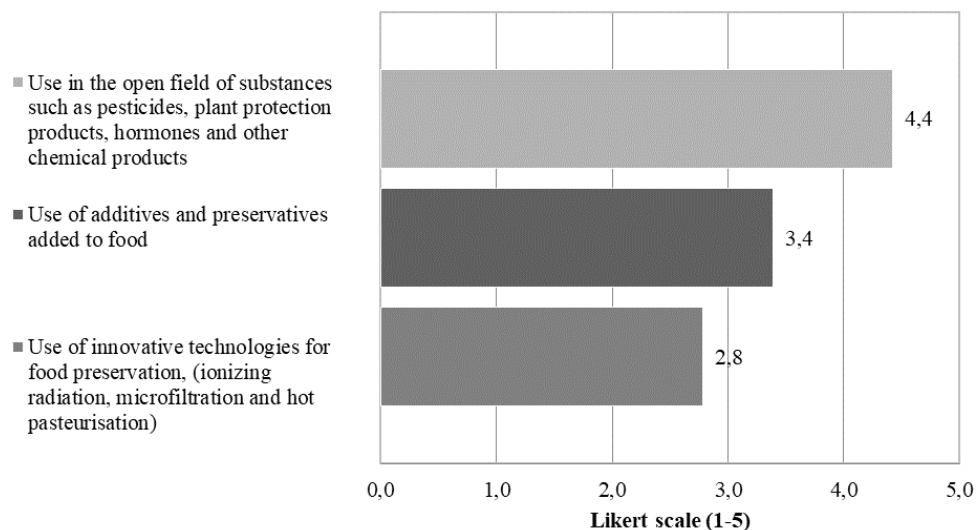
4.1. Profile of the respondents

The survey was carried out in Italy and a total of 392 interviews were completed. The numbers of male and female participants in the survey exactly the same (50% respectively) and represented a wide range of age categories. In particular, most participants were between 25 and 44 years (52.3%), is part of a household of 4 people (38.0%), have a higher level of education taking into consideration that 57.9% of the respondents have a degree or a second level master degree. As regards their occupation, the majority of the respondents are employed (44.1%), while only 17.9% were students. In terms of monthly family income 40.1% of the respondents have an income between one thousand and two thousand euros.

4.2. Consumer risk perception and knowledge and attitudes towards irradiated food

The majority of consumers (69.6%) associate the food risk to the food products treated with chemical fertilizers and harmful to health, while 30.4% associate the food risk to the food products with additives and preservatives in quantity higher than normal. In particular, is the use in the open field of substances such as pesticides, plant protection products, hormones and other chemical products during the production and processing phases to determine a greater perception of health risk by respondents (4.4), followed by the use of additives and preservatives added to food (to color, preserve or improve the appearance, taste, color and smell of the product) (3.4) (Figure 1). On the contrary, the use of technologies for foods preservation, such as ionizing radiation, microfiltration and hot pasteurization, is perceived as less negative by consumers (2.8).

Figure 1 – Consumers risk perception

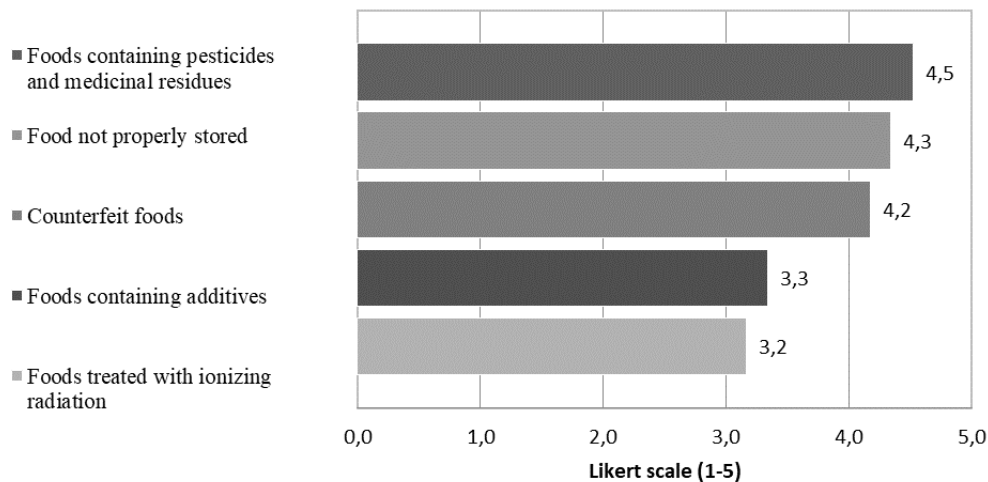


Source: Our elaboration on collected data

The main concerns expressed by respondents and therefore the highest levels of risk are found for foods containing pesticides and medicinal residues (4.5), for those not properly stored (4.3) and for counterfeit foods (4.2) (Figure 2). In contrast, consumers do not consider foods containing additives and those treated with ionizing radiation particularly worrying for health. Our findings are consistent

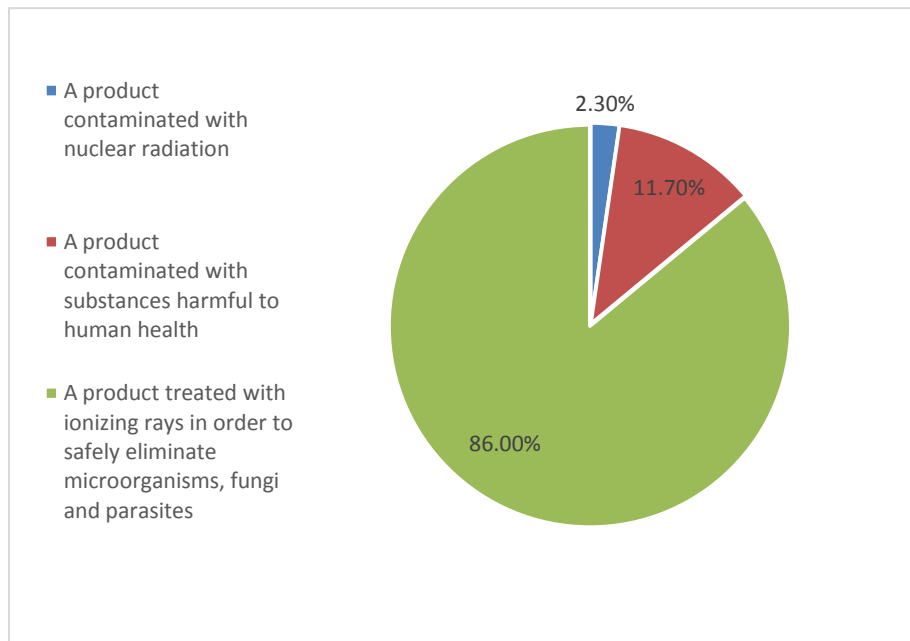
with the results of Resurreccion et al. (1993), Resurreccion et al. (1995) and Lima Fihlo et al. (2016) according to which consumers have some level of concerns for problems linked to the pesticides, hormones, bacteria, than irradiation.

Figure 2 – Risk perception and typologies of products



Source: Our elaboration on collected data

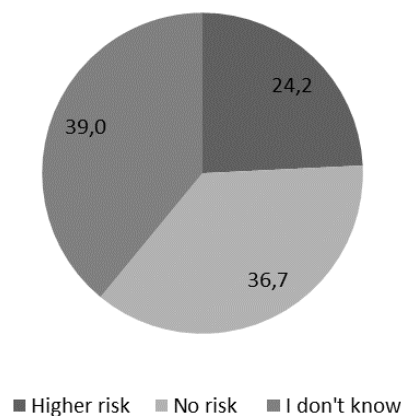
84.2% of the Italian respondents did not know of treatment processes of food products with ionizing radiation and 83.2% of them is not aware that in Italy are sold food products previously treated with ionizing radiation. The low level of consumer's knowledge about food irradiation has been revealed in several empirical researches (Gunes and Takin, 2006; Junqueira Goncalves et al., 2011; Rosati and Saba, 2004; Lima Fihlo et al., 2016). 62 respondents who know the treatment of food products with ionizing radiation, are mainly resident in the Southern Italian regions, are part of households with an average of 4 members, and have a high level of training. Although there is a low level of knowledge of the treatment of food products with ionizing radiation, 86.0% of the respondents affirm that these are products treated with ionizing rays in order to safely eliminate microorganisms, fungi and pests for human health (Figure 3). On the contrary, 46 respondents (11.7% of the total) said that they are product contaminated with substances harmful to health and only 9 respondents (2.3%) replied that it is a product contaminated with nuclear radiation. Several studies showed that often consumers associate food irradiation to radioactivity, cancer, and nuclear accidents (Resurreccion et al., 1995; Resurreccion and Galvez, 1999; Gunes and Takin, 2006; Ornellas et al., 2006; Behrens et al., 2009; Junqueira-Goncalves et al., 2011; Lima Fihlo et al., 2016).

Figure 3 - Interpretation of the concept of product treated with ionizing radiation

Source: Our elaboration on collected data

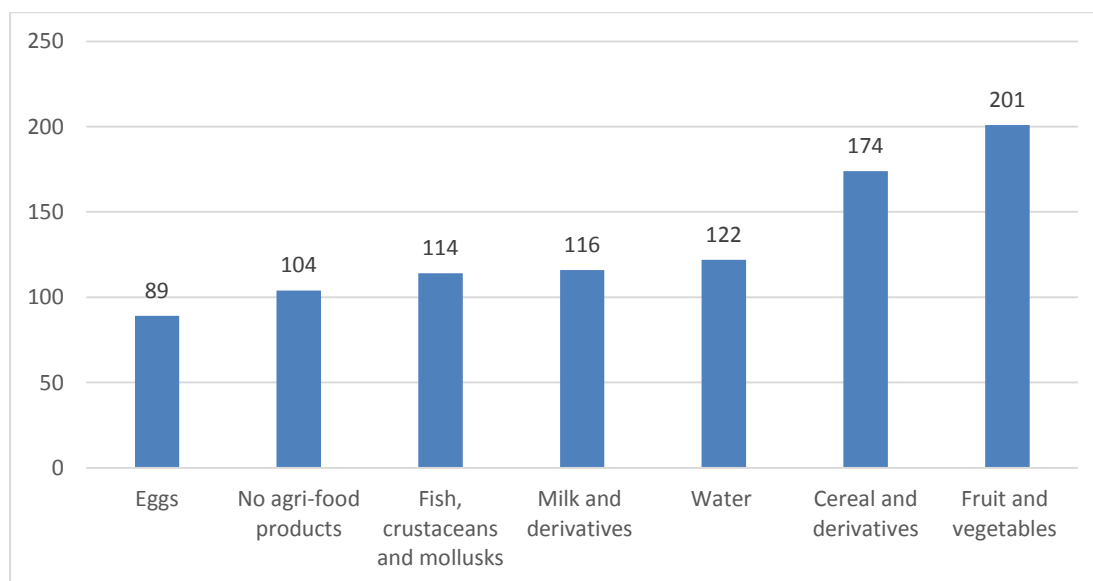
The low level of knowledge on the treatment is also reflected on the knowledge of the symbol included on the label of the marketed products. In fact, as emerges from the survey, 85.2% of respondents do not know the symbol "Radura".

In order to understand the effect of a greater knowledge of the treatment of food products with ionizing radiation on the acceptability and attitude of consumers towards irradiated foods, in a special questionnaire box, the technology and benefits that can be obtained in terms of food safety and food security were presented. After acquiring this information, the majority of consumers (39%) show a certain degree of uncertainty about the effect that the consumption of irradiated foods can have on human health in the long period (Figure 4). 36.7% of respondents, however, do not associate the consumption of products irradiated with problems for human health. On the other hand, 24.2% of respondents perceive such products negatively, so much so that they believe that the long-period intake of irradiated products can cause problems for human health. Several empirical evidences emphasize that if the consumers is informed about food irradiation benefits, their willingness to accept and by irradiated food tends to increase (Gunes and Takin, 2006; Pohlmann et al., 1994).

Figure 4 – Risk perceived for irradiated food consumption

Source: Our elaboration on collected data

The level of uncertainty prevalent on the possible impact on human health of irradiated foods means that 26.5% of respondents, despite having acquired information on the benefits produced by the treatment, would not buy any irradiated food product. This is the case of consumers with a secondary school mainly and with a medium-low income level. The remaining 288 respondents say they would be willing to consume if treated with ionizing radiation, fruit and vegetables (69.8%) and cereals and derivatives (60.4%), followed by meat (44.1%), water (42.4%), milk and derivatives (40.3%) and fish, crustaceans and mollusks (39.6%) (Figure 5). The product that consumers would be less willing to consume with the knowledge that it was treated with ionizing radiation are eggs (30.9%).

Figure 5 - Products that consumers would be willing to buy with the knowledge that they were treated with ionizing radiation

Source: Our elaboration on collected data

89.5% of the Italian respondents believe that, taking into account the benefits of the irradiation technology, an effective awareness campaign is necessary. Indeed, our findings show that 89.3% of the respondents is interested in acquiring more information on agro-food products treated with ionizing radiation and 95.4% of them is interested to have more information on how to recognize a treated product than conventional food products. 93.1% of the respondents is interested in a better understanding of the differences between the different food technologies. Therefore, a clear informative need emerges from the interviewed subjects. In fact, 88.5% believe that the introduction of elements that lead back to the treatment of products during production processes is fundamental in the labels of fresh and processed products.

Lastly, the interviewees were asked whether the terms irradiation could influence their purchase intention and whether the replacement of the terms irradiation with cold pasteurization could change their opinion on these products and their purchase decision. 59.4% of the respondents consider that the expression irradiated food affects the purchase intention, and 58.4% of people interviewed thinks that changing the term "irradiation" with "cold pasteurization" can positively change his opinion and his choice of purchase on irradiated products. Our findings are consistent with Beherens et al. (2009) according to which cold pasteurization is more widely accepted by consumers than irradiation.

CONCLUSIONS

This study analyzes the level of knowledge of the irradiation technology applied to food products among Italian consumers and the perception of the risk associated by themselves to the consumption of products treated with ionizing radiation. The survey carried out in Italy shows, in accordance to the results of empirical surveys conducted in other countries, that the main Italian consumers concerns are associated to foods containing pesticides and medicinal residues, not properly stored, and counterfeit foods, and less to irradiated foods or products containing additives. This low level of risk perception is related to the low level of knowledge among the consumers of the food irradiation technology. Indeed, as emerges from our investigation, 84.2% of the Italian respondents did not know of treatment processes of food products with ionizing radiation and 83.2% of them is not aware that in Italy are sold food products previously irradiated. Even as a result of the acquisition of information on the technology and its benefits in terms of food safety and food security, most consumers continue to express doubts about the impact that the treatment of agro-food products with ionizing radiation can have on health in the long period. A concern that is mainly linked to the expression "food irradiation" that is perceived in its most negative association. Indeed, the replacement of the expression "food irradiation" with "cold pasteurization" for food products, being the same

technology, could change the attitude of consumers towards the treated products, increasing the propensity to buy irradiated foods.

The results highlight, on the whole, the need to start an effective communication campaign aimed at making known the benefits of technology, taking into account the impact that the same can have both on the food safety and on the food security.

This study provides some both political and managerial implications. From a political point of view, this study, could reinvigorate the interest of the European and National governments towards the irradiation technology, taking into consideration that this technology contributes as a whole to the wellbeing of society, but which requires several investments in communication campaigns. On the managerial point of view, our findings can support the decision making process as they provide indications on the main perceived risks for food products, contributing to satisfy the consumers expectations. In addition, the use of this technology could contribute to solve an ethical issue related to the food waste caused by many pests and contaminants that can be eliminated through ionizing radiation treatment.

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SIMULATION OF ALTERNATIVE SCENARIOS IN PORTUGUESE WINE SECTOR: AN AGENT-BASED MODEL APPROACH

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ABSTRACT

The wine sector is one of the most remarkable industries in Portugal exhibited by the several and important demarcated regions. This paper intends to predict the wine industry farm sustainability of two of the most relevant Portuguese regions, North and Alentejo. The available data on the Portuguese Farm Accountancy Data Network (PTFADN 2001-2012) which compiles social, economic and environmental parameters from 2001 until 2012, allowed us to perform the function fitting with MATLAB and gather information about each variable's behaviour. That information was then blended into our selected methodology, an ABM that emulates the current North and Alentejo wine-production reality and simulates their further development. Considering the current status of both regions and our model parameters, the 100 years simulation showed that only 38% and 68.2% of the North and Alentejo farms respectively would subsist by the end of the timeframe. By changing the model initial conditions, alternative scenarios were tested and governmental policies were evaluated. The grape selling benefits generally outperform the direct governmental subsidies, to the point that a simple governmental grape selling benefit of 0.054(€/kg) on the Northern region may avoid the extinction of 15.6% of the farms in the next 100 years. The results also showed that the Alentejo region is generally better prepared to deal with increasing labour and environmental costs opposed to the North region, which saw a severe depletion of the farm survival rates during this experiment.

Keywords: Agent-Based Model, Wine Sector, Performance, Sustainability.

INTRODUCTION

The wine sector presents itself as one of the most important economical and historical Portuguese endeavours. In fact, this sector relevance goes way beyond the pragmatic profit-oriented approach

since the extensive Demarcated Regions such as the Douro and the Green Wine Demarcated Regions in the North of Portugal own an uncapped non-tangible value. The extensive vineyards in the Northern region bundle quality wine production (the worldwide known Port Wine is one of the region most cherished treats) with a mesmerizing set of wine landscapes perceived as a potential resource for the development of the tourism (Rachão and Joukes, 2017). Alongside the Northern Region which is characterized by the prominent steep mountain viticulture, Alentejo shows up as the other most relevant wine producing region from Portugal. Alentejo drifts away from the North's entrepreneurial layout since it's based on plain field viticulture welcoming the high mechanization of vine related tasks. Since the viticulture activity relies on natural scarce resources and there is a major concern with the trade-off between intensive production and the activity environmental impact (Marta-Costa *et al.*, 2012), this premise falls purely into the sustainability notion which is usually defined as a three-dimensional concept (Marta-Costa *et al.*, 2012; Mencarelli and De Propris, 2014). This article follows up this assumption acquainting three core variables (social, economic and environmental) which may describe the long-term sustainability of the featured regions (Alentejo and North). To reach the inner Alentejo/North dynamics MATLAB R2017a software was used to interpolate the data of those two regions into trendy but periodical functions. Afterwards the ABM software (NETLOGO) was selected to simulate the following 100 years acquainting the real data-based dynamics previously found. This article is divided into 5 sections. After the brief introduction about our working concept and major goals, Section 2 presents the methodological literature review. Section 3 explicitly presents the ABM formulation while Section 4 dives into the numerical simulation with shifting initial conditions. The overall conclusions are finally presented on Section 5.

LITERATURE REVIEW

Agent-based models have become an increasingly important tool. They are particularly valuable for systems that are not understood well enough to build an equation-based model. Those models also display an inherent simplicity that eases the output presentation to people without intensive knowledge about the scientific facts. An *et al.* (2017) considers ABM's as "middle-ware" investigatory objects that can select abstracted representations of real-life that seem too complex for formal traditional mathematical analysis. ABM building allows the researcher to settle arbitrary deterministic events or relationships between agents that underpins the complexity levels and computational expense. On the other hand, the event bundle created by the author may generate unforeseen results and aware him about patterns and relationships that he wasn't aware before (emergence).

The ABM's inner simplicity and absence of evaluation mathematical tools was criticized right way by Lorek and Sonnenschein (1999), so, in order to counter that statement, Grimm *et al.* (2006, 2010)

proposed a set of ABM generic format rules that intend to create a standard basis for those models. Called frequently “Overview, Design Concepts, Details” (ODD) the main purpose of this protocol is to make ABMs writing and reading easier and therefore more suitable for replication. It is also worthier to point out that the application of the ODD protocol may be extended to other large and complex models in general.

The properties of individual organisms how they grow or develop (reproduction, death, hunting, gathering food) and how they interact with each other can be represented quite well by using an ABM. Alongside the inner individual features the environment can also be configured fact that allows the researcher to collect information about the interaction between the individual agents and the environment. The way as the individuals respond to external circumstances in a mapped landscape can be modelled in detail with the ABM approach (e.g. DeAngelis and Mooij, 2005; Grimm *et al.*, 2005; Railsback and Grimm, 2012). Considering that range of possibilities, the ABM methodology presents itself as a perfect contender for Ecology or Biology studies. For example, Santos *et al.* (2017) models an ABM framework that intends to predict bat activity and mortality on wind farms. Sibly *et al.* (2012) presents the energy acquisition by individuals in ABM, emulating the dynamics within an animal population, while DeAngelis (2005) formulates the systematic of ecological and evolutionary processes. Nonetheless, ABM's features also reveal themselves very useful in the social sciences such as Economics or Psychology (Smith, 2007). A few authors such as Kohler (2000), Bonabeau (2002) and Conte (1997) describe the dynamics in human societies and also ABM methods and suggestions to simulate those systems. An (2012) modelled a coupled human decision and natural system (environment) ABM. In fact, those human based dynamics, heterogeneity, decision making process coupled together in this methodology not only present a deliberate invitation to Economic modelling but also as main tool to solve latent economics problems (Farmer, 2009). Regarding more specific Economics applications, ABM methodology has been used to describe Keynesian model of income distribution alongside credit and fiscal policies (Dosi *et al.*, 2010, 2013), financial incentives in market-oriented policies (Sierzechula *et al.*, 2014; and Shafiei, 2012), or analyse threats to the financial stability (Bookstaber, 2012).

MATERIAL AND METHODS

To attain a simulation-wise environment and further apply our featured methodology (ABM) the data available on PTFADN (2001-2012) was considered to model deterministic functions that describe the behaviour of the North and Alentejo farms.

Since we want to evaluate the overall sustainability of the wine farms considering their own heterogeneity, each farm should acquaint a set of variables that display their current entrepreneurial

status. As referred on Section 1, the goal is to avoid farm bankruptcy and allow the subsistence of such an important Portuguese sector. The model premise is quite simple. Each farm has a set of inner characteristics such as their own area, bank balance, overall management quality, productivity (size-dependant) and location (Alentejo or North). At each period the farm produces and sells their grapes (for wine production) considering their own productive capacity and foreign market prices: grape selling value, labour, intermediate consumption among others. Afterwards the bank balance is updated and a trigger is settled to evaluate if the farm is sustainable and can proceed their activity or it closes.

Considering the available data on PTFADN (2001-2012) from 2001 until 2012 (for North and Alentejo regions), we collected the values of the subsidies (euro per ha), investment (euro per ha), production (ton per ha), labour costs (euro per ha) and finally an environmental bundle variable which compiles the sum of: electricity, fuel and lubricant, fertilizers, crop protection and water (all specified in euro per ha). Each variable compiles a short-term time series from 2001 until 2012 furtherly interpolated with the MATLAB fitting tool (see Appendix 1 - Figure 4 and 5 for graphical results). It is also important to consider that the farm productivity generally improves with larger areas due to the increasing returns to scale (Sellers and Alampì-Sottini, 2016). To obtain a function that relates the farm size and productivity (Appendix 1 - Figure 6), we used the Galindro *et al.* (2018) results which delivers a productivity coefficient per farm size (nine area intervals) in the Douro Region (three sub-regions). To perform the MATLAB fitting we gathered average values from Galindro *et al.* (2018) bundling the three sub-regions productivity into one and considering the average value of the authors. The size productivity function $V(s)$ is now obtained (Equation 11) for the model variables start from the 2012 values (initial conditions) and evolve according to the individually obtained function.

$$P_a(t) = 2169 + 514.7 \cdot \cos(w_1 t) + 1475 \cdot \sin(w_1 t) - 926.7 \cdot \cos(2w_1 t) + 627.6 \cdot \sin(2w_1 t) \quad (1)$$

$$P_n(t) = 3193 + 328.1 \cdot \cos(w_2 t) + 204.9 \cdot \sin(w_2 t) + 168.9 \cdot \cos(2w_2 t) + 170.9 \cdot \sin(2w_2 t) \quad (2)$$

$$L_a(t) = 149.4 + 7.006 \cdot \cos(w_3 t) + 132.9 \cdot \sin(w_3 t) - 116.5 \cdot \cos(2w_3 t) - 3.045 \cdot \sin(2w_3 t) \quad (3)$$

$$L_n(t) = 664.6 + 95.17 \cdot \cos(w_4 t) + 111.4 \cdot \sin(w_4 t) - 36.62 \cdot \cos(2w_4 t) + 50.39 \cdot \sin(2w_4 t) \quad (4)$$

$$E_a(t) = 140.7 + 30.16 \cdot \cos(w_5 t) + 31.61 \cdot \sin(w_5 t) - 29.1 \cdot \cos(2w_5 t) - 22.43 \cdot \sin(2w_5 t) \quad (5)$$

$$E_n(t) = 293 - 5.764 \cdot \cos(w_6 t) + 17.01 \cdot \sin(w_6 t) - 14.02 \cdot \cos(2w_6 t) - 16.21 \cdot \sin(2w_6 t) \quad (6)$$

$$I_a(t) = 623.5 + 516 \cdot \cos(w_7 t) - 303.4 \cdot \sin(w_7 t) \quad (7)$$

$$I_n(t) = 603.2 + 30.02 \cdot \cos(w_8 t) + 150.4 \cdot \sin(w_8 t) + 69.05 \cdot \cos(2w_8 t) + 126.6 \cdot \sin(2w_8 t) + 112.6 \cdot \cos(3w_8 t) - 109.2 \cdot \sin(3w_8 t) \quad (8)$$

$$S_a(t) = 1715 - 1529 \cdot \cos(w_9 t) - 598.7 \cdot \sin(w_9 t) \quad (9)$$

$$S_n(t) = 5.918e08 - 5.918e08 \cdot \cos(w_{10} t) + 1.299e05 \cdot \sin(w_{10} t) \quad (10)$$

$$V(s) = 0.2558 - 0.000145s + 0.008062s^2 \quad (11)$$

Where variables t and s represent, respectively, the simulation time-period, with $t \in \{1, 2, \dots, 100\}$ and the farm size. Equations (1) and (2) represent the Production (Y); Equations (3) and (4) are the Labour (L);

Equations (5) and (6) represent the Environment (E); Equations (7) and (8) are the Investment (I); Equations (9) and (10) represent the Subsidies (S); and Equation (11) are the size productivity (S) (see Table 1). The constant values are given by:

$$\begin{aligned} w_1 &= 0.5023, & w_2 &= 0.6365, & w_3 &= 0.5459, & w_4 &= 0.4698, & w_5 &= 0.7204, \\ w_6 &= 1.067, & w_7 &= 0.312, & w_8 &= 0.6585, & w_9 &= 0.07364, & w_{10} &= -0.0001127 \end{aligned}$$

Modelling Procedure

The description of the model follows up the suggested specifications of the standard protocol ODD (when applicable) to describe ABMs, proposed by Grimm *et al.* (2010). NETLOGO 6.0.3 software (Wilensky, 1999) was used to perform the simulations and to calculate the several model outcomes. For simplicity both Alentejo and North farms will be simply referred as “wine-farms” since most of the concepts are analogous between them.

Virtual site description

The model simulates the subsistence of Alentejo and Douro farms and emulates two separated landscapes (one per each region) overshadowed by distinctive global variables, since the problem formulation doesn't acquaint spatial interactions among the agents their location on the 1024 patched grids is arbitrary.

Overview

Entities, state variables and scales

The model contains three types of conceptual variables (Table 1): the patches (unit cells) which form the virtual landscape and splits the studied area into two different regions (North and Alentejo), the generated wine-farms which are able to produce at each period, own a certain initial area (in ha) normally distributed with parameters approximately equal to the average values of the real data PTFADN (2001-2012), a management quality status, an initial bank balance and a Size Productivity value, both acquainting the farm size. Finally, the global variables surround the agent's production function supplying the market values of the several available features stated on Table 1.

Variable	Alentejo (IC)	North (IC)	Brief Description
Grape selling price (P)	0,82€	0,82€	Grape selling price (€/kg) given by the external market.
Area (A)	$\sim N(19.92, 5)$	$\sim N(8.23, 5)$	Individual farm area (ha).
Bank Balance (B)	$A^* \sim N(20000, 1000)$	$A^* \sim N(20000, 1000)$	Initial bank balance from each Douro and Alentejo farm (€).
Quality (Q)	Random number (0.5-1.5)	Random number (0.5-1.5)	Inner farm conditions (management, terrain, vineyard structure) that can overvalue or undervalue the production. (-50% to +50%).
Subsidies (S)	Equation (9)	Equation (10)	Subsidies value that each farm receives from the government per each period (€/ha).
Investment (I)	Equation (7)	Equation (8)	Yearly investment value by the producer (€/ha).
Environment (E)	Equation (5)	Equation (6)	Bundle of intermediate consumption that each farm expends in order to produce (€/ha).
Labour (L)	Equation (3)	Equation (4)	Labour costs that the farm needs to support in order to produce (€/ha).
Production (Y)	Equation (1)	Equation (2)	Individual grape production (kg/ha) of each farm.
Size Productivity (V)	Equation (11)	Equation (11)	Based on Equation 11, V displays the productivity of the farm considering its size.

Table 1. *ABM variables formulation, description and Initial conditions(IC)**Produce*

The farm production is the core procedure of this model, at each period the farms perform their activity and gain or lose money according to the production function $R_i(t)$, given by Equation (12), where i represents the farm i from the set of 500 farms $F = \{1, \dots, 500\}$. The final result updates each farm bank balance and evaluates if the farm is sustainable and able to proceed their activity (*bankruptcy* procedure).

$$R_i(t) = P(t) \cdot A_i \cdot Q_i \cdot a_i + S \cdot A_i - E \cdot L \cdot I \quad (12)$$

Bankruptcy

Since our goal is to evaluate the sustainability of Alentejo and North wine farms, the bankruptcy procedure checks each farm bank balance and perform an “if” condition, where farms with bank balance below 0€ disappear from the model.

SIMULATION AND RESULTS

The initial model tries to attain information about the evolution of 1000 farms (500 from Alentejo and 500 from the Northern region). It contains a settled seed to entangle the initial stochastic generation of each farm size (A), quality (Q) and bank balance (B). Since the global variables evolution is previously given by the interpolated functions, the initial model outcome is purely deterministic. The grape price

is settled to start at 0.82€ and increment by 0.005€ (to acquaint the price inflation). The graphical interface of our model (before running the simulation on NETLOGO 6.0.3 can be seen on Figures 1A and 1B. The layout is divided into two distinctive areas separated by a neutral black horizontal line. The green area represents the North region and the yellow is the Alentejo region. The houses represent each individual farm (Alentejo-red and North-blue) and their size are directly correlated with their area. It is quite noticeable that Alentejo owns substantially larger farms than North. The Figure 1B shows the graphical interface at the end of the simulation ($t=100$) where 310 farms (62%) from North went out of business, the Alentejo scenario is mildly better with only 159 vanished farms (31.8%). In both regions overall costs increased during the simulation (see Figures 2A and 2B), especially during the latter 50 years.

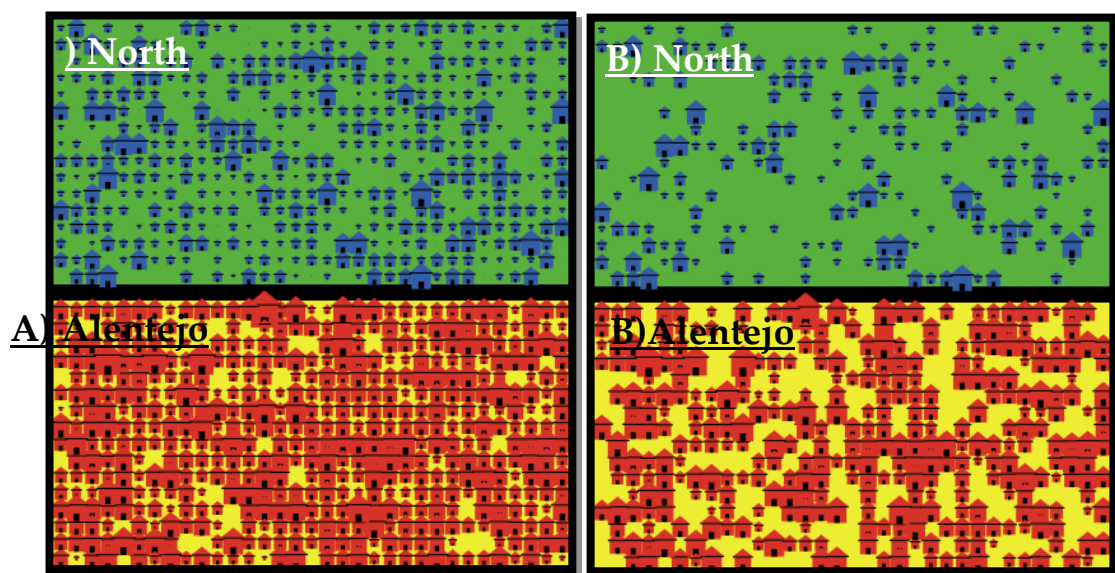


Figure 1. Initial A)($t=0$) and final B)($t=100$) ABM graphical interface for the North and Alentejo regions

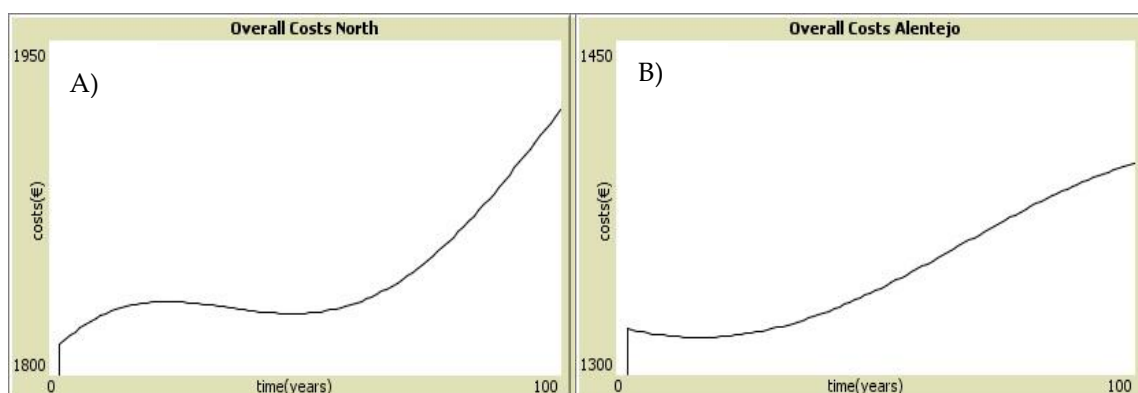


Figure 2. ABM simulation results for overall costs in North region (A) and Alentejo region (B)

The main goal is to avoid this sad fate with such many bankrupted farms in the next 100 years. The subsidies appear in the model with a direct influence into each farm bank balance, we then assume that the government is able to increase this direct aid. Figure 3 provides the impact rate per incremental subsidy level on the farm survival rate at the end of the 100-year simulation. Even though it is possible to improve our benchmark scenario, and almost ensure the complete survival of the whole Alentejo's farms for a 3000 (€/ha) incremental subsidy per period, such measure discloses heavy governmental expenditure.

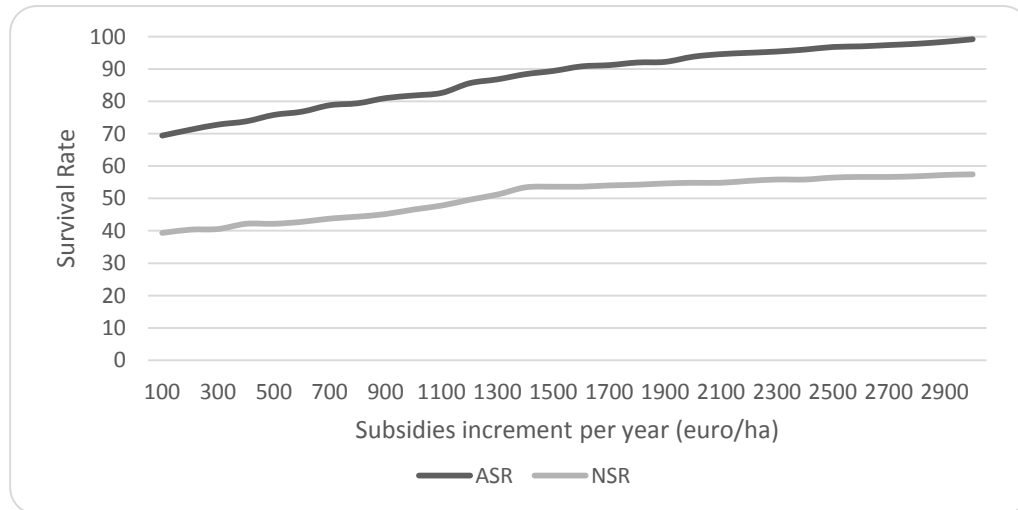


Figure 3. *Survival rate of Alentejo (ASR) and North (NSR) farms per governmental subsidy level*

Fortunately, the government owns alternative tools, other option (which is currently active in Portugal) is to provide a beneficial grape selling price (€/kg) to the producer. Starting again from the initial model, we add a certain value (benefit) to the yearly farmers grape selling price. In order to establish some comparison against the previous government support, we calculate the government expenditure per benefit level accounting the overall production per hectare from both regions. The results on Table 3 display the farm survival rate (SR) upon the two different supports with matched governmental expenditure.

Government Expenditure (€/ha)	Beneficial grape price (€) Alentejo	Beneficial grape price (€) North	Alentejo SR Subsidies	North SR Subsidies	Alentejo SR Benefit	North SR Benefit
0	0.000	0	67.2%	38.0%	67.2%	38.0%
100	0.027	0.033	69.4%	39.4%	72.8%	44.2%
200	0.054	0.067	71.2%	40.4%	77.8%	53.6%
300	0.079	0.100	72.8%	40.6%	80.4%	54.8%
400	0.105	0.133	73.8%	42.2%	83.6%	56.4%
500	0.131	0.167	75.8%	42.2%	88.4%	57.4%

Table 2. *Comparison of governmental subsidies and grape selling benefits in the survival rate of Alentejo and North farms*

It is easy to see that the beneficial grape price measure overshadows the subsidies impact on both regions. The main reason may lay on the fact that this incentive benefits directly the production function outcome allowing roughly productive farms to withstand. While the subsidies are not related to the farm production, the selling price benefit directly shifts up the operational capabilities introducing a multiplicative income effect to the farm that increases the SR substantially. The results on the North are quite impressive, according to our model's conditions and assumptions, it is possible to save 15.6% of this region farms with a 0.067€ benefit and an additional government expenditure of 200 (€/ha). On the other hand, with the same amount of expenditure, 10.6% of Alentejo's farm would also be preserved.

Environmental and labour based impacts

As stated previously during this article the environmental and social variables represent two of the three core concepts that define the firm sustainability. Labour shortages and subsequent wage overpricing can be a consequence of unfavourable demographic dynamics such population aging (Fuchs *et al.*, 2017) and migration towards urban areas (Jan van der Laan, 2016). On the other hand, activities such as the viticulture rely on scarce natural resources. The depletion of those natural resources and the overall environment may trigger increasing prices and governmental taxes in order to discourage excessive demand and preserve the environment. To emulate such scenario alongside the uncertainty concerning Social and Environmental variables, we apply a percentage increase into the labour (L) and environmental (E) cost variables per year. To consider the volatility surrounding such variable we will also apply a random deviation upon that increment level. For this simulation we abandon the fixed seed at the beginning of the model, therefore, to perform this stochastic model we run each simulation 30 times. Table 3 compiles the results, displaying both region survival rates upon different levels of cost increments and randomness.

Social and Environmental percentage increment per year	Random deviation	Alentejo		North	
		Average SR	SR Standard Deviation	Average SR	SR Standard Deviation
0%	0%	68.20%	0.0000	38.00%	0.0000
5%	-3% to 3%	68.14%	8.8474	32.90%	9.5768
10%	-6% to 6%	67.60%	8.9659	31.17%	12.8185
20%	-12% to 12%	67.14%	11.3171	26.75%	17.8581

Table 3. *Alentejo and North survival rates with incremental Environmental and Labour costs.*

The first remark from our results it is the almost innocuous effect from the increasing costs in the Alentejo region farm SR. On the other hand, the Northern region suffers substantially with the introduced randomness and increasing costs, losing about 11.25% more farms than our initial simulation in the worst-case scenario. There are two possible explanations for this phenomenon: the

first is that the North requires more labour intensive than Alentejo and subsequently the impact should be greater. The second explanation lays on the higher productivity levels from the Alentejo farms underpinned by their larger areas. Such advantage may lead those farms to deal better upon negative and unexpected (random) scenarios.

CONCLUSIONS

In this article two distinctive wine producing Portuguese regions, Alentejo and North, were presented. After a brief presentation about this sector relevance on the Portuguese economy the sustainability analysis of the studied regions was selected as the major goal of this article. To emulate the wine farm activity from the Alentejo and North regions and furtherly simulate alternative scenarios, the ABM methodology was selected. The model relies on a few assumptions, random generation and interpolated time-dependent functions based on real data accounting also productivity per farm size variable. The initial simulation compiling 500 generated farms per each region displayed an alarming scenario at the end of our timeframe (after 100 years) with the survival of only 38% and 68.2% of the North and Alentejo farms respectively. Governmental policies such as the subsidies and the grape selling benefits were analysed and compared, the results showed that the latter may overperform the subsidies measure on both regions. Considering our model formulation and assumptions a simple governmental grape selling benefit 0.054€ on the Northern region may avoid the extinction of 15.6% of the farms. Finally, some threats were also considered such as rising labour and environmental costs alongside with model stochasticity. The results showed that the Alentejo region is generally well prepared to deal with such negative scenarios opposed to the North region, which saw a severe depletion of the farm survival rates during this experiment. The reason beyond the strength upon negative scenarios of the Alentejo farms in comparison with the North might be explained by their less intensive labour approach (more mechanization) and better productivity levels derived by their larger areas. This article with the chosen methodology (ABM) showed that Alentejo and North farms sustainability on the forthcoming future (specially the North region) are under threat but governmental measures such as the grape selling benefit may play an important role to ensure the sustainability of both regions. For further work, it is possible to get into more detail and include more variables such as the weather conditions or add the real data of individual farms to make the model more accurate.

ACKNOWLEDGEMENTS

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APPENDIX 1

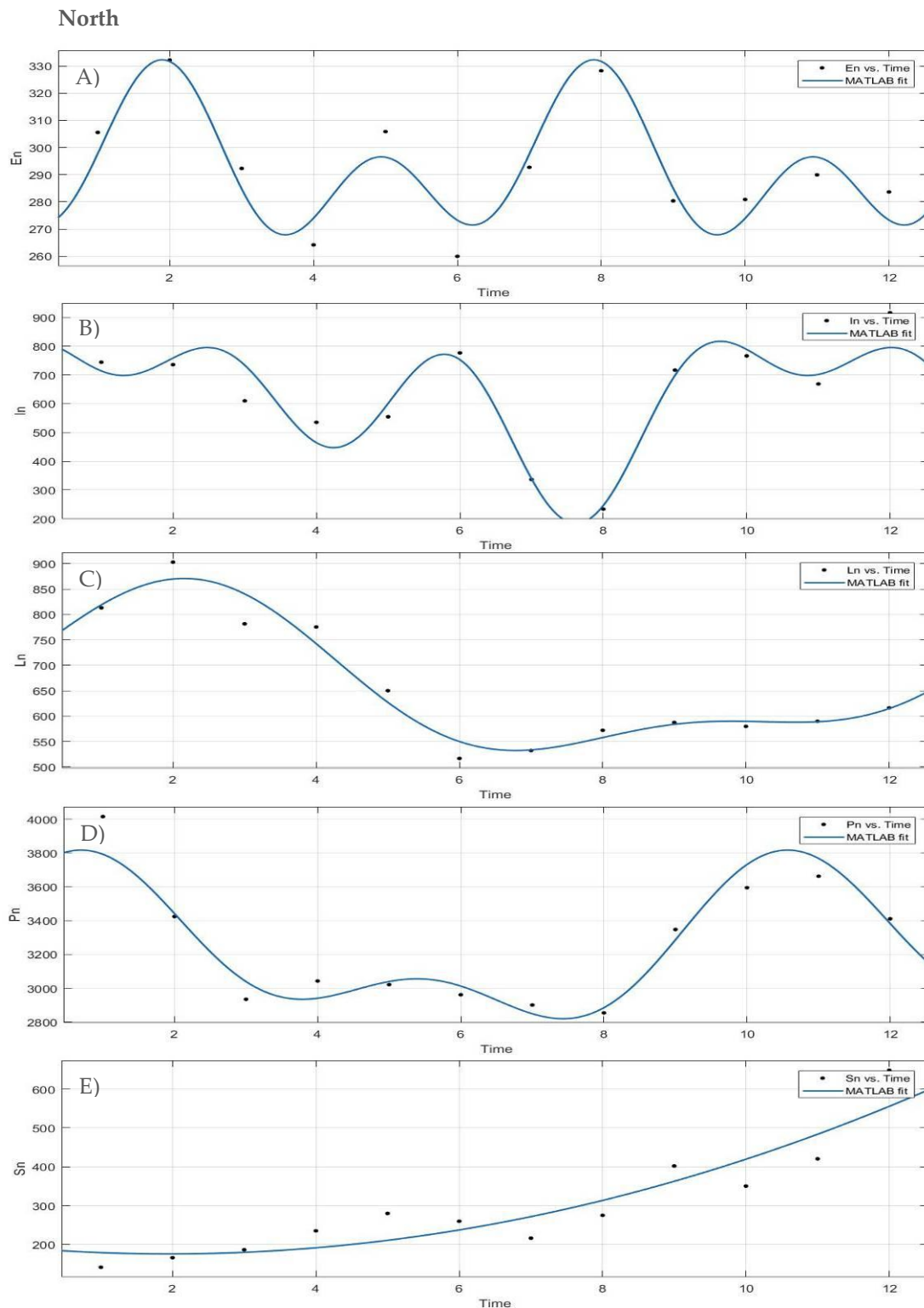


Figure 4. Figure A 1: Matlab interpolation of short-term time series from 2001 until 2012 for North region. The variables used for build this interpolation were a) environmental bundle (sum of electricity, fuel and lubricants, fertilizers, phytofarmaceuticals and water); b) investimento; c) labour costs; d) production and e) subsidies.

Alentejo

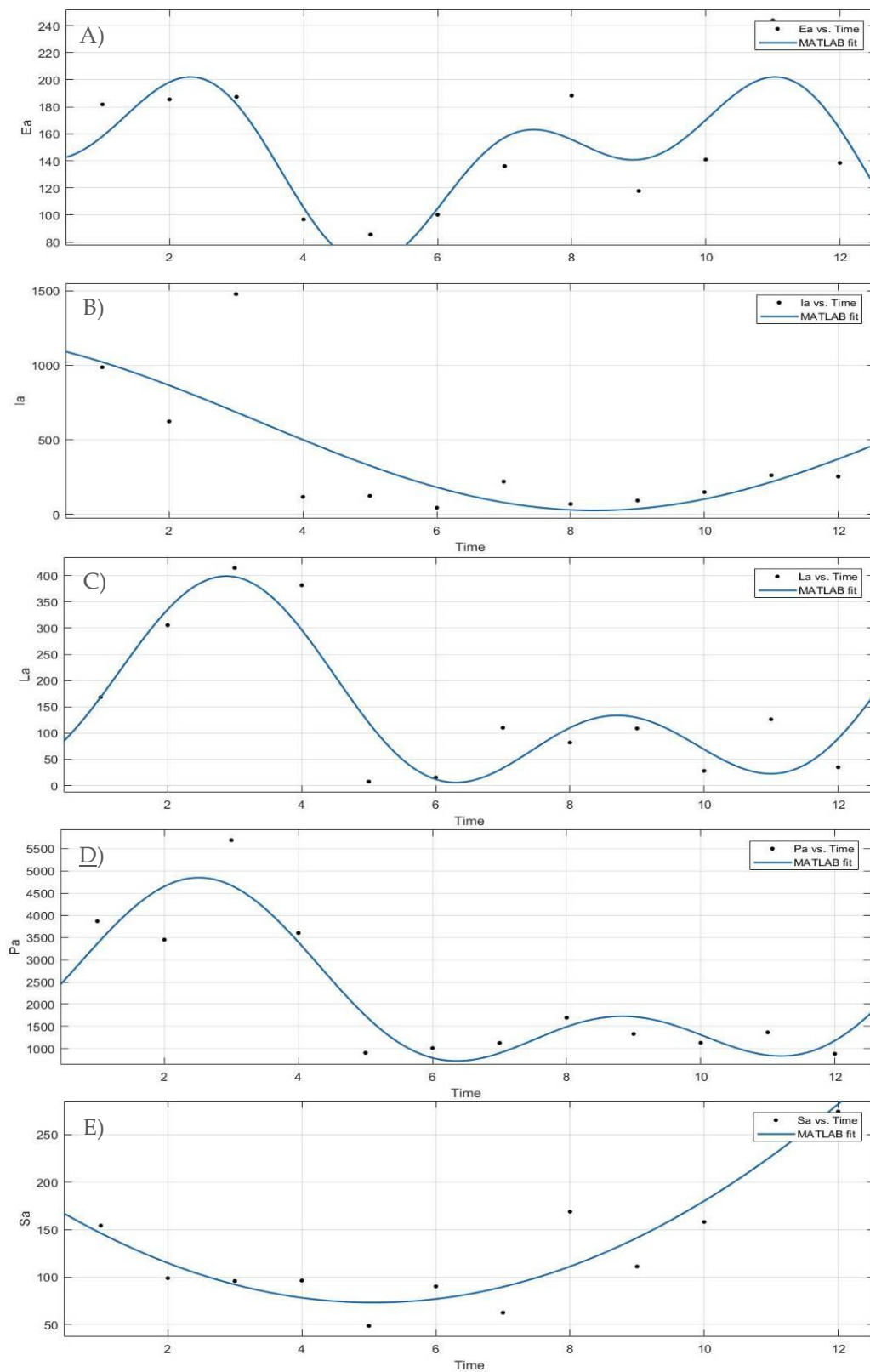


Figure 5. Matlab interpolation of short-term time series from 2001 until 2012 for Alentejo region. The variables used for build this interpolation were a) environmental bundle (sum of electricity, fuel and

lubrificants, fertilizers, phytofarmaceuticals and water); b) investment; c) labour costs; d) production and e) subsidies.

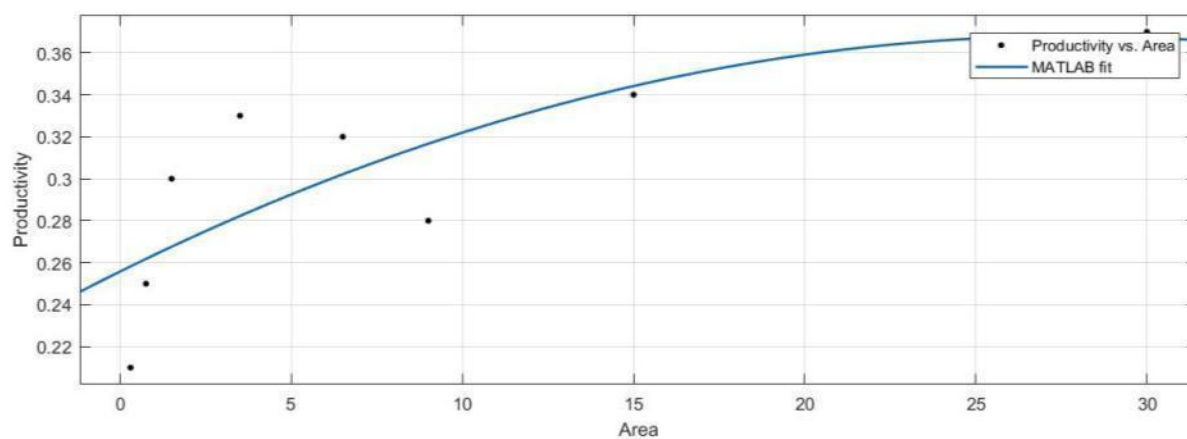


Figure 6. *Observed relation between the farm size and productivity*

INNOVATION AND TRADITION IN THE WINE BUSINESS: AN ENQUIRY INTO FAMILY BUSINESSES' APPROACH TO THE DILEMMA

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ABSTRACT

In the last twenty years the winemaking sector has witnessed considerable change due to an increase in competition and in the competence of wine consumers, who now look for quality rather than quantity. Some firms decide not to focus on the product or the brand, but rather on the moment of consumption and the philosophy underlying such moment. Such an approach might be considered as an example of the combination of tradition and innovation: the history and the uniqueness of the territory are not affected by dramatic changes; in fact, they benefit from innovation in the meaning of the product.

Most firms try to pursue strategies seeking to take advantage of both tradition and innovation. Even though the opposition between innovation and tradition has not been solved yet, meaning-driven innovation definitely opens a window on a series of issues that deserve to be taken into consideration for further research.

Keywords: Wine Business, Innovation Management, Tradition, Family Business

INTRODUCTION

Nowadays innovation is definitely one of the most important drivers for the success and growth of companies (Christensen et al., 1999 and 2003; Kim and Mauborgne, 2005; Verganti, 2008).

The wine industry has become an increasingly important factor for the growth of a lot of countries, with a relevant contribution both in terms of employment and revenues (Avermaete, 2002; Menrad, 2004; Bigliardi and Galati, 2013; FoodDrinkEurope, 2016). Within this context, which is characterized by an increasing competition and globalization, innovation is recognized as a key strategy for sustaining competitiveness and meeting current and future consumer's needs, also in terms of health and safety (Bigliardi and Galati, 2013).

Italy has had a long history as a wine producing and consuming country and it is then no surprise that today it ranks first in the world for the volume of total wine production, with nearly 45 million hectolitres produced in 2013 (OIV, 2013).

New competitive patterns and changes have emerged in the industry placing Italy, along with other wine making countries, in a challenging and competitive environment, where tradition and an

internationally recognized fame are no longer sufficient to maintain a leading position on the global market, where the “New-World countries” have been increasing their market share: while in the 2000-2012 period the most traditional wine producing countries witnessed a decrease in the level of wine production (i.e. France -28,4%, Italy -15,15%, Spain -22%), in the same period countries such as China, Chile, Australia and South Africa increased their production of over 40% (OIV, 2013). Such rapid considerable growth undoubtedly represents a critical factor which should not be underestimated.

Furthermore, significant changes in consumption patterns, have contributed to making the competitive arena more challenging: while in Europe the recent recession has led to a sharp decrease in consumption, in New-World countries wine has become more and more popular.

What is more, the increasing internationalization of the sector has forced companies to face a larger number of consumers on the one side – which represents a considerable opportunity – and to deal with different consuming behaviours on the other – which has resulted in a more and more uncertain market.

A number of studies (such as Cohen et al., 2009; Balestrini et al., 2006; Norman et al., 2014) have showed that the buying process and consumption patterns of wine consumers change depending on national culture.

Moreover, differences in quality perception should also be taken into consideration. Broadly speaking, two schools of thought might be identified when it comes to the organoleptic characteristics of a wine. The first considers the quality of the product as strictly related to the *terroir*¹, thus a prerogative of the winemaker, considered as an “expert” because of his considerable knowledge of climate, grape variety, soil and the environment from which the wine derives its origin. According to this perspective, human intervention, for instance the adding of aromas, should be kept to a minimum, as the final product should fully express the characteristics of the land. This approach is known as the “French method” (Cohen et al., 2009), which dominated the worldwide market for several decades, but which is currently struggling to maintain its position in countries where such culture and are not long-established. Old-World countries have tried to protect themselves by emphasising the importance of the *terroir* and introducing stricter national laws on the Denomination of Origin².

However, such laws did not produce a decisive advantage for French and Italian wine producers, as

¹ Although the term stands for “territory” in French, in the wine sector *terroir* represents a broader concept. The term does not only represent the natural and physical characteristics of the soil, the climate and the geology of the land, but it also includes the knowledge and expertise necessarily related to the history and culture of the population of that territory, which all contribute to the intrinsic and unique qualities of a specific wine (Cusmano et al., 2010).

² In Italy, the Denomination of Origin is an official recognition of the quality of a wine, certifying that it has been produced in a specific territory according to specific standards. The Denomination of Origin law originally distinguished DOC (*Denominazione di Origine Controllata*) from DOCG (*Denominazione di Origine Controllata e Garantita*) wines (Corrado et al., 2009).

they did not provide effective guidance for production and generally ended up confusing consumers, especially international non-expert ones (Corrado et al., 2009). As a result, an opposite, more recent market-oriented trend has emerged, one according to which the consumer is the main player (Cusmano et al., 2010).

All of these factors have resulted in another big challenge for wine producers, especially for Italian ones: the increasing importance of marketing activities.

WINE BUSINESS: LITERATURE REVIEW

The literature about the wine industry is rich. Focusing on innovation, the presence of different types of innovation has been investigated (Vrontis et al., 2016) along with different available business models. Considering the paradigm of open innovation (Chesbrough, 2003), external and internal configurations have emphasized the relevance of external sources within innovation development processes (Sarkar and Costa, 2008). In particular, the crucial stage of acquiring external knowledge and building strategic networks (Giacosa et al., 2017) has been analysed, as it increases competition and growth (Bower, 2001).

In a current scenario characterized by both hyper-competition and globalization, on the one side, and new technologies on the other (Bjor et al., 2010), innovation is the key strategy for achieving competitiveness (Bresciani, 2009 and 2010; Cooper and Kleinschmidt, 1993). Thanks to innovative strategies (Bresciani et al., 2015), companies build and maintain competitive advantage by developing products and services in order to achieve a sustainable position in the market (Santoro et al., 2016).

In such a context, innovation in the wine sector is deemed particularly relevant. Although the wine sector is characterized by a low R&D intensity and a certain mature degree (Galizzi and Venturini, 1996; Costa and Jongen, 2006), product and process innovation may help companies to deal with competitors and satisfy consumer's needs (Menrad, 2004), while allowing to satisfy the demand in terms of product variety (Costa et al., 2007).

Process innovation generally focuses on both production and marketing strategies (Dries et al., 2014) along with productive, logistic and packaging innovation aimed at generating or modifying customer's needs (Toops, 2009). Effective innovation strategies generate different kinds of benefits, such as lower costs, higher product quality, higher productivity levels, as well as customer satisfaction (Clarke et al., 2012).

Several innovation approaches have been analysed in the wine sector, taking into account both internal and external sources for achieving innovation (Chesbrough, 2003; Sarkar and Costa, 2008).

Different configurations of innovation (internal, external and mixed) (Schilling, 2009), along with product and process innovation (Bresciani et al., 2015; Giacosa, 2011) have been applied to the wine

sector (Adner and Levinthal, 2001; Bresciani, 2009 and 2010; Sood and Tellis, 2009). Within this context, it has frequently emerged that only a combination between traditional and innovative strategies allows companies to achieve and maintain the competitive advantage which ensures the company's survival (Carrasco-Hernandez and Jimenez-Jimenez, 2012; Greenwood and Miller, 2010).

Where does innovation lie? Or, in other words, what are the most innovative sectors? It is a fact that industries seem to be more innovative than others or, at least, they seem to promote and favour innovation more than others. Every year Thomson Reuters publishes *The 100 Global Innovators* report, which aims to rank the 100 most innovative firms of the year by considering a number of parameters such as the number of patent applications granted, how often such patents are cited by other companies, whether such patents improve existing ones. Considering the limits of this approach (for instance, there cannot be a patent for innovation concerning change in the meaning of a product), the results of the last three years give useful insights. Some industries recur more than once while others are not present at all. The wine and beverage industry is not on the list but, as already pointed out, this may be due to the fact that in this industry patents are not as frequent as in the other sectors. What is more, most of the patents filed in the wine industry concern the suppliers of a wine company, as they may be related to the bottle, the closure or the label of the product. Results differ when we consider Forbes. Its section on the Most Innovative Companies in 2013 does list some firms from the beverage industry and that is due to the fact that Forbes evaluates firms by considering their *innovation premium*, i.e. the difference between their market capitalization and the current net value of the cash flow of companies in the same business 11, which is a good indicator of how much the investors expect the company to be innovative now and in the future. What is noticeable in Forbes's list is that none of the companies is Italian. Although Italy is globally recognized as one of the major and best reputed producers of wine, spirits and other alcoholic beverages, it still suffers in the competitive arena before international competitors. Most Italian wine companies are family-owned or cooperatives, which demonstrates how crucial tradition is in this sector.

If, on the one hand, the literature offers an analysis of the innovative processes conducted by enterprises, on the other hand the issue is whether such studies may find an application in a sector which does not share the characteristics considered in the study of innovation.

In some large companies, the combination of tradition and innovation is managed with a strategy of diversification of the portfolio: on the one hand, some wines are representative of tradition, i.e. they are made from indigenous grape varieties with a constant research aimed at produce the best wine possible. When it comes to this kind of wines, history, quality and expertise are highly valued; wines, even though they target different segments, are promoted in a way that one might consider "conventional", i.e. it is emphasized that they represent a territory at its finest expression. When it

comes to this kind of wines, there is little place for innovation, which tends not to be considered essential, as the history and poetry surrounding the wines get all the attention.

On the other hand, the company also owns a brand (i.e. a set or range of wines) which has a global appeal and generates considerable volumes of sales. Although still related to the family, the wines are not related to a specific territory or a single estate, they are promoted as any mainstream brand (for instance, they are distributed in supermarkets). For this kind of wines, innovative strategies play a more prominent role than for the previous one; strategies are usually more flexible and aimed at promoting the products that best suit a specific segment, without harming the identity of the company. In order to ensure this, market research must be extremely accurate and it becomes the main driver for innovation: salesmen and export manager(s) are to study the market and identify emerging trends.

As the family generally wants to preserve the identity of the company and its coherence with the Italian winemaking tradition. That is precisely why some (large) wine companies do own a large portfolio with tens of products created for different specific markets. Doloreux *et al.* (2013) have highlighted that clients are the most frequently cited type of source of information and new ideas, the other sources used being trade fairs, exhibitions and suppliers along with competitors and industry associations.

In wine companies, the main innovation drivers are often the area managers and other operators in the sales department), when they act as market researchers: they can play such a role because they are closer to the market and can get ideas and suggestions in an easier, more immediate way. This is in line with what Dyer *et al.* (2011) have theorised, i.e. observing is one of the key skills of innovators, who should first understand the market in order to come up with new ideas.

Given the fact that their size does not allow for a complex organisation, often in family businesses there is no formal distinction between the marketing and sales departments.

In terms of innovation, the most relevant differences seem to be related to the kind of market targeted by the company: in the most traditional markets, such as Italy and France, different marketing strategies are required as innovation seems somehow to be associated with trivialization. This is due to the fact that in the most traditional markets people are used to drink wine daily, and the consumption of wine is related to diet and tradition (Bernetti *et al.*, 2006). What is more, a sort of sacred value is conferred to wine, considered as a product deeply related to the territory and the history of people; wine has always been distinguished from other beverages and perceived as more sophisticated, in that it is the only beverage whose uniqueness is closely related to the uniqueness of a territory.

On the other hand, countries which do not have an ancient tradition of wine making and wine

consumption, the value of wine does not only depend on the *terroir d'origine* but also on other immaterial factors, such as the brand. In such markets there is definitely more space for marketing and communication activities aimed at creating and associating new values to the product (Balestrini *et al.*, 2006).

Another aspect to take into account is the openness of a market to new, innovative products. In traditional countries, consumers are acquainted with drinking wine but generally they drink wine(s) from their own territory. Although they might have experience and knowledge of other products from their country, this does not necessarily mean that they know about international wines. Italy is an example of such kind of countries, along with Australia, France, Spain, Belgium, Chile and Argentina. On the other hand, some countries seem to be more open to different types of wine; typically, the United Kingdom, whose wine consumers are usually aware of a broader range of varieties and brands. It is a fact that British consumers tend to experiment rather than stick to a range of labels. Also the United States and Canada share several of the characteristics of the British market (Campbell *et al.*, 2006), as well as Northern European countries (Norway, Sweden, the Netherlands, the Baltic states). Wine Intelligence (2013) has defined the most traditional countries as “mature markets”, which do not offer big opportunities of growth; on the contrary, “modern countries”, i.e. emerging markets, appear to be more attractive and more open to new products and new meanings.

In conclusion, in Italy innovating tends to be seen as unprofitable, and not only because of the individual perception of wine –which might be considered sacred and stereotyped at the same time: the wine sector tends to conform; in other words, doing things differently does not always work. For instance, in traditional countries such as Italy, Germany and Spain using screw caps gives the wine a detrimental “low-cost/low-quality” aura: this is the reason why some (large) companies sell screw capped bottles only in some markets, while in others they use natural cork.

Another reason why it is hard to innovate in Italy lies in the stagnation of the market. Wine Intelligence has classified the Italian market as mature, i.e. characterised by little or no growth (Wine Intelligence, 2013).

As innovation often requires considerable investments that need to be paid back, the current state of the Italian market does not seem to allow for investments on innovation.

However, companies who can afford it create a marketing department for the domestic market and a marketing department for foreign markets, a strategy which is in line with the “export imperative” that has forced wine companies to focus on more promising markets (Wine Intelligence, 2013; Anderson *et al.*, 2011).

Finally, another aspect to consider is that new, non-traditional consumers are approaching wine, i.e. young people and women, which might contribute to the success of initiatives promoting wines in

unconventional ways. Although young consumers might consider wine as a product for “old people” (Mora, 2006) or might feel insecure because they do not know much about the considerable number of labels and denominations available (Brunner *et al.*, 2011), companies should invest on marketing activities targeted at young people, with the aim of creating a core of wine-drinking customers that will pay back the investments in the long run.

Product innovation

When talking about product innovation in the wine industry, it is essential to consider the fact that the product can be thought of in different ways. In other words, “wine” does not refer only to the liquid contained in the bottle. Packaging matters too, i.e. bottle, cork, label and other accessories. As Mueller *et al.* (2008, p.1) have pointed out, “the first taste is with the eye”. The packaging might also affect consumers’ expectations about the sensory experience they are about to enjoy (*Id.*, 2008). In addition, it has been shown that 48% of purchases in a point of sale are based on packaging (De Luca *et al.*, 2006). Packaging is also the product component that is more subject to change and innovation, especially when one considers the stopper and the bottle: elements that are changed in order to improve the manageability of the product and that represent an important communication tool (Balestrini *et al.*, 2006; De Luca *et al.*, 2006). De Luca *et al.* (2006) has reported on a qualitative research carried out on the English market, where consumers said that, when buying a bottle of wine, they actually choose on the basis of the label design and the aesthetic characteristics of the bottle, as they do not know much about the product.

Innovating marketing strategies

As each market reacts to marketing activities in a different way, wine producers tend to adopt the closest possible approach to the consumer. If, in the past, making good wine was enough to sell the product, nowadays wineries have to find strategies to make the product and the brand recognized and considered in the sector.

Communication tends to emphasize the quality of products, the respect for the unique characteristics of the territory, the peculiarities of the vineyard, the history and the “poetry” surrounding wine.

As already suggested, it might be easier and more effective to innovate the ways of communicating the product, i.e. packaging, label, bottle, rather than the product itself (Balestrini *et al.*, 2006). An example is the sleeve label, which is a transparent plastic cover that adheres onto the bottle, thus letting the producer “dress” its product with whatever colour or pattern he wants. Sleeve labels have been used for beverages for decades, but they have been recently used successfully also in the wine business as a way of communicating.

Meaning-driven innovation

Innovation does not concern solely the product but also the social meaning of it as well as its use. As

Verganti (2008) has pointed out, meaning-driven innovation is related to products which satisfy subtle, unspoken needs of the market, by creating new habits and contexts of consumption. Meaning-driven innovation is not aimed at radically changing the product, but its meaning in the consumers' perception.

Process innovation

Innovation may also concern internal processes (Schilling, 2008). Innovating processes does not only mean considering the productive point of view but also improving sales and organizational procedures. It is related to thinking about business in a different way. It often represents an important improvement in the process of building brand awareness and loyalty: two crucial factors in the wine industry.

CONCLUSION

In the last twenty years the winemaking sector has witnessed considerable change due to an increase in competition and in the competence of wine consumers, who now look for quality rather than quantity. Although more intense competition has led to innovation, wine makers have not abandoned local traditions.

The most recent challenge lies in the attempt to make wine in a more and more environmental-friendly way while at the same time meeting the needs of a more and more demanding audience who gives assiduous attention to health and environmental issues. To this regard, a lot has to be done to harmonize international regulations as well as to make stricter national laws to regulate the use of toxic chemicals. The regulations on the use of sulphites and other additives in organic wines clearly need to be revised – innovation might be crucial in reducing the use of such substances, with an impact not only on winemaking but also on food production in general.

Being thoroughly regulated as well as based on a complex appellation system, the winemaking sector has limited possibilities to introduce radical innovations. On the other hand, innovation plays a major role also in the countries where traditions are more deep-rooted – such countries, successfully combining tradition and innovation, have made it possible for the sector to keep abreast of the times and be up-to-dated.

As for product innovation, of course wineries can introduce new products but these cannot – at least for some time – be classified at the top of the quality pyramid as appellations are given only to typical products which have been classified as IGT for some years. Furthermore, it is extremely difficult – if not impossible – to introduce product innovation within the existing appellations as the regulations governing production are quite strict about the way in which the various wines must be made. Those who wish to work with fewer rules, might opt out of the appellation, as a number of wineries have

done over the years – in a few cases, their new products have had a huge success.

At least in theory, wineries have endless possibilities to carry out product innovation, for instance by blending different grapes. In actual fact, though, a successful wine is the result of years of studies and research carried out by qualified wine makers. Any wine should be created bearing in mind the consumer's tastes and needs. Following strategies defined "market pull", wineries gather loads of information on such tastes and needs. Very often, they use international varieties not traditionally associated to the area of production such as Chardonnay, Merlot and Sauvignon, which tend to be more easily recognized even by novices.

Last but not least, organic, natural and biodynamic wines may well be considered a result of product innovation.

Focussing on family wineries, it is a fact that they tend to follow strategies based on the combination of tradition and innovation – their efforts to innovate result in both a wider range of products (i.e. new wines) and in the continuous improvement of the quality of the existing ones thanks to the use of technology. The production of local wines is based on traditional practices, while innovation is more related to attempts at appealing to the consumer.

When consumers are captivated (Quester and Lim, 2003), they are more likely to get involved in a buying experience (Flynn and Goldsmith, 1993). Across generations, a multi-sensorial strategy (Clarke et al., 2012) highlights its specificity in relation to corporate values, family reputation, and cultural identity. This in turn contributes to long-term authenticity and prestige, brand awareness, together with a sense of exclusivity of the goods offered (Kapferer, 2002), thus also promoting regional identity in a rather effective way.

Undoubtedly, the combination of innovation and tradition has a positive impact on the consumer's perception of the image of the winery, provided that product innovation is managed in an appropriate way, i.e. combining extensive research into product quality with a focus on the consumer's perception of the winery's image.

In order to support their innovation strategy, some family wineries might adopt a flexible, flat organisational structure, which improves vertical and horizontal coordination and communication, making it possible for the family to take timely decisions and readily adapt to the market.

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FUNDS OF HEDGE FUNDS' PORTFOLIO CONSTRUCTION AND THE ROLE OF CYPRIOT MARKET IN A EUROPEAN DIVERSIFIED PORTFOLIO

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ABSTRACT

During the last decade the exposure of institutional investors to FOHFs has increased strongly, inside the hedge funds industry because of diversification opportunities despite the poor value they deliver.

Among the diversification choices at the heart of portfolio construction, there is the geographical focus: despite a high diversification by asset, FOHFs managers prefer to invest in nearby hedge funds because information availability. Nonetheless, little is known on geographical diversification without US focus and on the contribution of the single country.

By looking at hedge funds from United Kingdom, Ireland and Cyprus, results show that geographical diversification matters for FOHFs. In particular, funds based in Cyprus do not outperform with respect to other market independently with respect to the RAP measure selected, but they are useful for constructing FOHF especially if investors aim to reduce the systemic risk, tracking error or downside risk exposure.

Keywords: hedge funds, performance, FOHF, portfolio diversification, Sharpe ratio, Treynor index, Jensen's alpha, Modigliani's square, Information ratio, Sortion index.

1. INTRODUCTION

Funds of Hedge Funds (hereinafter, FOHF) are diversified investment vehicles that provide investors with diversification either across managers but within a single hedge fund strategy, such as long/short, or across a wide range of hedge fund strategies (Dai and Shawky, 2012).

During the last decade the exposure of institutional investors to FOHFs has increased strongly, inside the hedge funds industry: such success of FOHFs among investors is determined by the positive contribution to diversification of equity portfolios, both during bull and bear phases (Denvir and Hutson, 2006), that increases with the extension of investment opportunities to international assets

(Kooli, 2007), therefore despite the poor value they deliver they are appreciated by risk adverse investors (Ang et al., 2005). The advent of the global financial crisis reversed somewhat this trend, with assets under management (AUM) of the industry taking a sharp turn for the worse after steep losses and heavy redemption pressure from investors (Dai and Shawky, 2013) that was mainly ascribed to an excessive risk taking and the lack of diversification of the portfolio under management (Iannuzzi and Berardi, 2010).

Among the diversification choices at the heart of portfolio construction, there is the geographical focus that in other areas and in other industries it represents the best solution in order to reduce the overall risk exposure (e.g. Ferraris, Bresciani e Del Giudice, 2016). Despite a high diversification by asset, FOHFs managers prefer to invest in nearby hedge funds because information is scarce and costly to obtain. In fact geographical diversification is found negatively impacting both returns for not global strategies and risk overall. Nonetheless, available empirical evidences address the topic of the impact of international diversification by geographical areas always considering the US, while little is known on geographical diversification without US focus and on the contribution of the single country.

In light of the contagion risk that concentrated FOHFs can pose at system level (Sialm et al., 2013), the paper addresses international diversification of FOHFs investing in European hedge funds, that are featured by a higher frequency of biggest funds and a lower intensity of home bias (Eurekahedge, 2018). Selected hedge funds are domiciled in United Kingdom, Ireland and Cyprus: such funds share the common regulation framework under the Directive on Alternative Investment Fund Managers fostering transparency, but they still differ. United Kingdom is the first country in Europe by manager location (and it found fundamental in attracting capital when implementing international diversification out of United States (Teo, 2009), while Ireland is the domicile of the vast majority of European hedge funds since last decade (PWC, 2015). A fast growing country in the hedge fund industry is Cyprus, with the number of entities doubling and the total assets tripling over the last decade, especially after the 2013 financial crisis which hit the island and its banking system with deposits bail in, even though several fluctuations are noticed in the last 4 years (Eurosystem, 2018).

The paper presents an empirical analysis on a portfolio of hedge funds internationally diversified in order to evaluate if the Cypriot market may be an interesting opportunity for maximizing the return/risk profile for a FOHF. The paper presents a detailed analysis of the literature review (section 2) about the FOHF diversification strategy and the impact of geographical diversification on the performance and risk of the portfolio. The empirical analysis (section 3) presents the sample selection criteria, the RAP (risk adjusted performance) measures selected for the analysis and the results on the relevance of the Cypriot market in a diversification strategy. Results show that hedge funds based in

Cyprus do not outperform with respect to other market independently with respect to the RAP measure selected but they are useful for constructing FOHF especially if investors aim to reduce the systemic risk, tracking error or downside risk exposure.

2. LITERATURE REVIEW

During the last decade the exposure of institutional investors to alternative investments has increased strongly, particularly through FOHFs, inside the hedge funds industry: such success of FOHFs among investors is determined by the positive contribution to diversification of equity portfolios, both during bull and bear phases (Denvir and Hutson, 2006), that increases with the extension of investment opportunities to international assets (Kooli, 2007), therefore despite the poor value they deliver they are appreciated by risk adverse investors (Ang et al., 2005).

Diversification is a key difference between FOHF and single strategy hedge funds: while the first ones can be diversified in terms of assets classes, sectors, styles and geographies, FOHF's are diversified investment vehicles that provide investors with diversification either across managers but within a single hedge fund strategy, such as long/short, or across a wide range of hedge fund strategies (Dai and Shawky, 2012).

Moreover, hedge funds information is scarce and costly due to restrictions in advertising publicly and the limited disclosure requirements (Agarwal et al., 2013), thus frequently institutional investors delegate due diligence and monitoring activities to FOHF at the cost of fees' duplication (Brown et al., 2005). Van Nieuwerburgh and Veldkamp (2010) show that the investor will specialize in their investment portfolios because they prefer to hold assets they are informed about, FOHF should be relatively undiversified due to the preference of investing funds close to them.

A lot of studies have addressed the topic of the number of hedge funds a FOHF should invest to reach a sufficient diversification level: a small number of funds, between 10 and 25, is found sufficient to diversify risk away, also under more recent analytical frameworks to assess the risk/return profile (Amo et al., 2007). Nonetheless, empirical evidences show that the FOHF industry is well diversified by number of funds, even though diversification does not appear to drive to meaningful risk reduction, but it can determine the death of the fund under extreme conditions (Brown et al., 2011).

At the heart of portfolio construction, there are the diversification choices on the exposure to take toward different strategies, sectors, geographies determining empirical evidences show that strategic asset allocation counts for more than the 70% of the performance (Suppal and Garza, 2012): in the geographic allocation of the portfolio, that is found affecting the capital raising capacity (Teo, 2009) as

geographical concentration is associated with smaller size (Gregoriou and Pascalau, 2009), FOHF appear to concentrate on hedge funds in the nearby because fund of hedge funds' managers are not capable to overcome institutional investors information limitations and, therefore, a negative relationship is observed between geographical diversification and FOHF return, even though a significant reduction of idiosyncratic risk is observed (Shawky et al., 2012). In particular, the global macro strategy, based on geographical diversification with the aim at profiting from major economic trends and events in the global economy, like currency and interest rates shift (Fung et al., 2006), allows to mitigate risk, coherently with the violation of the normality properties of returns (Morton et al., 2006) to enhance positive skewness of the market risk exposure (Davies et al., 2016) coherently with the violation of the normality properties of returns (Morton et al., 2006).

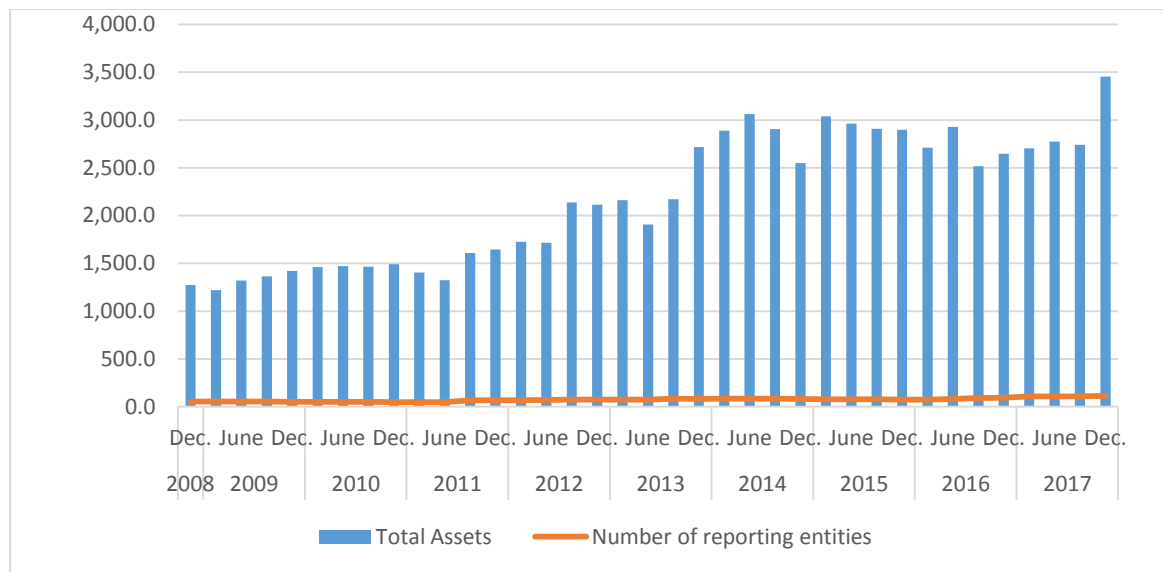
Among the risk factors, funding liquidity risk is extremely relevant for FOHFs because, in first place, they are liquidity providers. Secondly, FOHFs' investments show that funds with high loadings on the funding liquidity factor underperform low-loading funds and market liquidity and funding liquidity interact with each other, potentially leading to negative liquidity spirals, while hedge fund managers are not entirely successful in timing shifts in market liquidity, and lockup provisions are only effective during high liquidity states (Ilerisoy et al, 2017). Under the macro perspective, the geographical diversification of FOHFs can mitigate disruptive implications of liquidity crises due to contagion they create within the area (Sialm et al., 2013), particularly during bear market conditions (Agarwal and Naik, 2000).

3. EMPIRICAL ANALYSIS

3.1 Sample

Our research sample consists of two of the main European markets for the hedge funds industry (United Kingdom and Ireland) and Cyprus. The choice to consider Cyprus is justified by the high increase in the investment funds in Cyprus in the past 10 years, with the number of entities doubling and the total assets tripling, especially after the 2013 financial crisis which severely affected the island and its banking system with deposits bail in. Several fluctuations are noticed in the past four years (Figure 1).

Figure 1 – Evolution of total assets and number of reporting entities in Cyprus



Source: Central Bank of Cyprus data processed by the author

Information for all the main players on the basis of the asset under management (AUM) for the time period 2010-2015 (monthly data) are collected. In order to have comparable size of samples for the three countries considered and due to the lack of data available for the Cypriot market, the number of hedge funds included is 10 for each country (Table 1).

Table 1. Sample

Hedge fund name	Country of domicile
Aaberdien Orbita Global Opportunities Strategy Limited	UK
ACL Alternative Fund	IR
Alder Global 20	IR
Argo Distressed Credit Fund	CY
Argo Fund	CY
Brevan Howard Asset Management LLP	UK
CQS Directional Opportunities Fund	UK
DIMAKOS	CY
Eganov Asset Management Stocks & Derivatives Strategies S.P	CY
European Capital Holdings	IR
GAM	UK
IKOS FUTURE FUND	CY
IKOS FX Fund	CY
Lansdowne Developed Markets Fund	UK
Leadenhall Diversified Insurance Linked Investments Fund Plc	IR
Leveraged Capital Holdings	IR
Lyxor Epsilon Managed Futures Fund	IR
Man AHL Diversified plc	IR
Man AHL Evolution	UK
Marshall Wace - MW Eureka Fund	IR
Marshall Wace - MW Europa Fund	IR

Marshall Wace - MW TOPS Fund	IR
OxAM Quant Fund Limited	UK
Pelham Long/Short Fund	UK
Pharo Macro Fund Ltd	UK
Regency Emerging Growth Fund	CY
Spectrum Stratim EM Debt Fund	CY
The Elbrus Fund Limited	CY
THE IKOS HEDGE FUND –USD	CY
Winton Futures Fund Ltd	UK

Source: Bloomberg data processed by the authors

The analysis of data by country show that some interesting differences in the performance achieved by hedge funds that may create an incentive for an international diversification strategy for maximizing the return/risk trade-off (Table 2).

Table 2. Summary statistics

Country	Statistics	2010	2011	2012	2013	2014	2015	Overall
Cyprus	Average	1.11%	-0.45%	0.47%	0.11%	0.31%	-0.23%	0.22%
	St.Dev.	1.70%	2.56%	1.94%	1.27%	1.43%	1.49%	1.79%
Ireland	Average	0.81%	-0.13%	0.17%	0.96%	1.12%	0.21%	0.52%
	St.Dev.	1.78%	1.65%	1.20%	1.55%	2.09%	2.09%	1.76%
UK	Average	1.07%	-0.16%	0.81%	0.90%	0.74%	0.44%	0.64%
	St.Dev.	1.89%	1.28%	1.15%	1.21%	1.32%	1.44%	1.41%
Correlation matrix								
	Cyprus	Ireland			UK			
Cyprus	100.00%	50.70%			62.48%			
Ireland	50.70%	100.00%			79.06%*			
UK	62.48%	79.06%*			100.00%			

Notes: * χ^2 square test Statistical significant at 95% level * χ^2 square test Statistical significant at 99% level

Source: Bloomberg data processed by the authors

Cypriot hedge funds are on average the riskier investment opportunity and also the less performing one while the best market for both performance and risk is United Kingdom. The correlation analysis show, as expected, that the performance achieved by hedge funds in different geographical areas is correlated but interesting the correlation between the Cypriot market and the other markets is the lowest independently with respect to the benchmark used (Ireland and UK) and even if it is higher than 50% it is not statistical significant.

3.2 Methodology

The performance analysis of each hedge funds investment is performed by considering the following risk adjusted performance measures (hereinafter RAP):

$$\alpha_{it} = r_{it} - r_{ft} - \beta_{it}(r_{Mt} - r_{ft}) \quad (1)$$

$$SR_{it} = \frac{r_{it} - r_{ft}}{\sigma_{r_{it}}} \quad (2)$$

$$M_{it}^2 = r_{ft} + \frac{r_{it} - r_{ft}}{\sigma_{r_{it}}} \times \sigma_{r_{Mt}} \quad (3)$$

$$TR_{it} = \frac{r_{it} - r_{ft}}{\beta_{it}} \quad (4)$$

$$IR_{it} = \frac{r_{it} - r_{Mt}}{\sqrt{\frac{1}{n} \sum_{i=1}^n (r_{it} - r_{Mt})^2}} \quad (5)$$

$$SI_{it} = \frac{r_{it} - r_{Mt}}{\sqrt{\frac{1}{n} \sum_{i=1}^n \text{Min}(r_{it} - r_{Mt}, 0)^2}} \quad (6)$$

where r_{it} is the return of hedge fund i in the year t , r_{ft} is the return of a risk free rate bond for the year t proxied by a the ten year German government bond, r_{Mt} is the average value weighted return for all the hedge funds in the sample, β_{it} is the beta of the return of the hedge fund i with respect to the market index, $\sigma_{r_{it}}$ and $\sigma_{r_{Mt}}$ are the standard deviation of returns for each fund and for the market benchmark, an n is the number of periods in the one year time horizon.

Formula (1) is the Jensen's alpha and it represents the excess return at time t of the hedge funds with respect to its expected return computed by using the standard CAPM model (Jensen, 1968). Formula (2) is the Sharpe ratio (Sharpe, 1994) and measures the extra return at time t with respect to the risk free for each unit of risk of the each fund (defined by the standard deviation of returns). Formula (3) is the Modigliani's square (Modigliani and Modigliani, 1997) that computes the return achieved by the hedge fund at year t if the risk assumed by the hedge fund is exactly equal to the market risk. Formula (4) is the Treynor index (Treynor 1965) that measures the excess return of the hedge fund with respect to the risk free rate divided for its Beta. Formula (5) is the Information Ratio (Goodwin, 1998) and it computes the extra-return with respect to a benchmark (the average value weighted index) with respect to a tracking error. Formula (6) is the Sortino Index (Sortino and Forsey, 1996) that measures the extra return with respect to a benchmark (the average value weighted index) with respect of a downside risk proxy. Similar tools are used in the literature for other funds' (ETFs) performance analysis (Mihai-Yiannaki, 2015).

A preliminary comparison analysis of the risk adjusted performance measures by country is performed in order to identify differences between in the risk and return profile for hedge funds base in Cyprus and other markets. The comparison considers standard summary statistics, correlations analysis and t-test for differences in the average values.

The role of Cypriot hedge fund industry in a portfolio of hedge funds is analysed by considering the yearly return of a portfolio of hedge fund internationally diversified, in formulas:

$$r_{Pt} = \sum_{i=1}^z w_i^* r_{it} \quad (7)$$

where the weights * that has to be assigned to each hedge fund are computed in order to achieve a RAP value equal to $\frac{1}{9} [O - ()]$ with ϵ and $0 \leq \epsilon \leq 9$. The analysis is performed by considering all different RAP measures presented in formulas (1) to (6).

3.3 Results

A preliminary analysis of returns achieved by hedge funds domiciled in Cyprus with respect to other European markets does not allow to find interesting and statistically significant differences in the performance achieved (Table 3).

Table 3. Summary statistics on RAP measures for Hedge Funds in Europe and Cyprus

		2010	2011	2012	2013	2014	2015	Overall
α_{it}	Overall	-0.96%	0.23%	1.08%	2.43%	1.71%	1.70%	1.03%
	Δ Cyprus	+3.34%	-0.47%*	-1.40%	-8.15%	-5.14%	-6.67%	-3.08%
SR_{it}	Overall	3.51%	-0.89%	3.46%	5.73%	4.35%	1.91%	3.01%
	Δ Cyprus	-0.16%	-1.13%	-3.52%	-6.89%	-5.24%	-3.64%	-3.42%
$M2_{it}$	Overall	8.88%	1.87%	5.92%	8.50%	7.65%	3.94%	6.13%
	Δ Cyprus	-0.27%	-1.76%	-4.24%	-7.82%	-0.71%	-5.58%	-4.46%
TI_{it}	Overall	-0.43%	-0.10%	1.52%	0.16%	-0.07%	0.10%	0.20%
	Δ Cyprus	-0.28%	0.05%	-1.6%	-0.16%	+1.32%	-0.36%	-0.17%
IR_{it}	Overall	-1.52%	1.13%	0.89%	2.17%	0.09%	1.53%	0.71%
	Δ Cyprus	1.30%	-1.26%	2.46%	-6.26%	-2.25%	-3.45%	-2.39%
SI_{it}	Overall	-1.55%	3.78%	10.10%	14.35%	1.23%	5.10%	5.50%
	Δ Cyprus	2.06%	-3.89%	-10.32%	-18.95	-1.42%	-7.33%	-6.64%

Source: Bloomberg data processed by the authors

Cypriot hedge funds almost never outperform with respect to the market average and only in one case (Jensen's alpha) the difference is positive and statistically significant. The worst average performances are related to the Sortino index because in the period analyzed all hedge funds based in Cyprus perform significantly less than the average market and so the index identifies them as not performing investments. The performance more similar to the hedge fund market is related to the average Treynor index because Cypriot hedge funds are on average characterized by a beta lower than other

markets and so even if the gross performance is not high the performance for unit of systemic risk is higher.

There is no clear time trend over time that can be identified in the data and the differences of the Cypriot market with respect to the rest of the industry seems to be persistent over the time horizon analysed.

The analysis of the role of Cypriot market for an hedge fund diversification strategy allow to identify some interesting differences on the basis of the type of RAP considered for the analysis (Table 4).

Table 4. The role of the Cypriot market in a diversification strategy

	2010	2011	2012	2013	2014	2015	Overall
α_{it}	81.99%	6.34%	44.29%	21.19%	50.20%	40.65%	40.78%
SR_{it}	26.86%	55.59%	41.77%	49.59%	55.96%	16.47%	41.04%
$M2_{it}$	15.77%	15.39%	26.82%	49.65%	40.61%	38.74%	31.16%
TI_{it}	19.83%	0.35%	13.84%	61.92%	12.82%	86.64%	32.57%
IR_{it}	12.44%	24.25%	16.41%	60.57%	23.50%	54.97%	32.02%
SI_{it}	15.58%	18.57%	9.98%	43.57%	9.30%	44.39%	23.56%

Source: Bloomberg data processed by the authors

On average RAPs that benefit the most from the investment also in the Cypriot market are the Jensen's Alpha (40.78%) and the Sharpe Ratio (41.04%) with a Sortino Index consider the investment in Cyprus as a marginal and residual strategy (23.56%). Results support the hypothesis that the benefits related to investing in that market allow to achieve better average results for RAPs based on mean and variance proxies while those based the tracking error, the beta and the downside risk do not take a clear advantage by investing in Cyprus.

In the 2011 portfolios, independently with respect to the RAP and the risk/return of the portfolio considered is the one in which the benefits related to invest in Cyprus are at the minimum. These evidences are consistent with the summary statistics analysis that identified the 2011 in Cyprus as the less performing and the riskier year in the sample. For analysing the contribution of Cyprus for different return/risk ratios, an additional analysis is performed by considering the average exposure portfolio on Cypriot funds for portfolio ranked in to deciles on the basis of the RAPs' values (Table 5).

Table 5. The role of the Cypriot market for diversified portfolios with different levels of RAP values

	α_{it}	SR_{it}	$M2_{it}$	TI_{it}	IR_{it}	SI_{it}
1st decile – Min	63.43%	87.66%	52.81%	37.93%	37.28%	23.94%
2nd decile	57.14%	77.43%	48.57%	36.72%	36.94%	26.89%
3rd decile	53.55%	56.97%	41.78%	35.51%	39.91%	26.61%
4th decile	48.69%	50.14%	34.88%	34.17%	30.75%	24.59%
5th decile	42.67%	38.56%	24.16%	32.75%	30.86%	26.59%
6th decile	38.66%	28.54%	14.69%	31.30%	34.49%	26.76%
7th decile	31.15%	21.62%	32.11%	29.91%	28.04%	26.57%
8th decile	27.29%	18.72%	24.22%	28.79%	27.40%	28.75%
9th decile	23.68%	15.49%	24.84%	27.65%	24.48%	24.13%
10th decile – Max	21.52%	15.24%	13.60%	30.93%	30.08%	22.66%

Source: Bloomberg data processed by the authors

The role of the investment in Cyprus or the Jensen Alpha, the Sharpe Ratio and Modigliani Square is higher for low performing portfolios and lower for portfolios characterized by higher values of the RAPs. The usefulness of investing in Cyprus is so higher for investor cannot invest in a portfolio that maximize the RAP values while others will consider it as a residual market for investing their capital.

The analysis of the Treynor Index, the Information Ratio and Sortino index show that Cyprus is not the main market for investing independently with respect to the RAP values, but all investors have benefit from having exposure in this market independently with respect to their target RAP value. Results show that investors that are worried about the systemic risk, the tracking error and downside risk have to consider always to have at least a minimum exposure in the Cypriot market for maximizing their return-risk trade-off.

Hedge funds industry is an heterogenous market that may offer significant advantages related to the implementation of a diversification strategy even if is still not clear if there could and advantage related to investing in different countries. The existence of significant differences in the regulation, size and performance among countries could be exploited for diversification purposes in the hedge fund industry.

4. CONCLUSION

The analysis of the Cypriot market has shown that it behaves differently with respect to other European markets (Ireland and UK) and even if its performance is worse than the average market it could be useful for diversification purpose. The analysis show that investors that wants to maximize their return-risk profile could benefit from investing in Cyprus especially for reducing the systemic, tracking error and downside risk exposure. Results obtained support the hypothesis that, even if the hedge fund market is significantly integrated worldwide and there is a high risk of contagion in the industry (e.g. Edwards, 1999), a FOHFs may benefit from international diversification strategies. An

efficient diversification strategy in the hedge industry cannot increase too much the number of hedge funds in the portfolio due to the cost of diversification and the lack of disclosure (Brown, Gregoriou, and Pascalau, 2011) but an international diversified one can allow to maximize the benefits related to the strategy implemented. Further development of the study has to consider longer time series and more complete set of hedge funds markets in order to evaluate if results provided are robust with respect to sample selection and moreover an interesting development could be to exploit if the advantage of investing in the Cypriot market holds even in a FOHF that is able to invest also outside Europe.

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CHINESE INNOVATION AND GLOBAL INTEGRATION - THEORETICAL FRAMEWORK OF PERCEIVED INSECURITIES IN UNIVERSITY TECHNOLOGY TRANSFER

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ABSTRACT

University technology transfer is growing in China and is vital to China's innovation and intellectual property program. This paper provides a literature review used to create a theoretical framework for explaining conflicts between university technology transfer participants. Economic development and business competitiveness relies on innovation and intellectual property generation. Given increased investments in university research and Chinese universities, it is important to be aware of conflicts between university technology transfer office staff and faculty within academic exchanges. University technology transfer is growing in China and is vital to China's innovation and intellectual property program. Conflicts between university technology transfer participants can thwart efforts to create thriving, successful university technology innovation and commercialization programs. This paper provides a literature review which defines insecurity as perceived threats felt by both the faculty researchers and TTO staff. From this literature review, a theoretical conceptual framework and hypotheses were developed to explain this phenomenon.

Keywords: intellectual property, job insecurity, technology commercialization, culture in research, research and development, technology development, Chinese intellectual property piracy, IP piracy

INTRODUCTION

This research is motivated by recent concerns over Chinese piracy of intellectual property. This research identifies conflicts between participants in university technology transfer which can harm academic exchanges between American and Chinese researchers. Universities have increased contributions to China's national innovation systems (Singh, 2015). In the late 1990s, a number of regulations were adopted by central and provincial Chinese governments to increase technological innovation and university-industry partnerships (Nezu, 2007). This is evidenced by the fact that since 2000, China has been the largest producer of science and engineering doctoral degrees; and the growth has been at a rapid rate. There were 4,000 awarded in 1996 and 31,000 by 2010 (NSF, 2014). Also, in

the early twenty-first century, there were about 2,000 scientific university ran businesses employing 238,000 employees including 78,000 researchers resulting in an increase of university technology transfer (Nezu, 2007).

Like the American universities, the details of managing intellectual property (IP) rights in collaborations are decided by the Chinese universities. Many Chinese universities have University IP Management Offices with publicly stated IP rules and require that their researchers file IP disclosure forms (Nezu, 2007). Thus, there is increasing transparency. With the increase of university managed business enterprises, there is growth in international collaborations. For example, the Japanese Kyoto University set up a technology licensing office in China. Although many Chinese universities have publicly stated their IP rules, there is a need for more consistency in IP rights management and more transparency given the increase in international collaborations (Nezu, 2007).

Academic interest in China's tech transfer has increased in both China and in America (Chen, 2016). University technology transfer offices (TTOs) have been around in America since the passage of the Bayh Dole Act in 1980. TTOs emerged in China nearly 20 years later in 1999 at the Xi'an Jiotong University and East China University of Science and Technology (Nezu, 2007). There are at least 30 TTOs in operation in China. Faculty are critical to university-industry licensing because if the research faculty did not participate in university tech commercialization, there would be a lack of university owned intellectual property (IP) to license and potential licensees to license patented inventions to (Thursby, 2004). Although the TTO staff is also critical, faculty researchers' attitudes about university tech transfer and their participation have more influence on the success of university tech licensing than the assistance provided by university TTOs (Wu, 2014). There are potential conflicts between the American faculty researchers and their university TTO staff persons. Herein, it is argued that in multicultural academic exchanges between American and Chinese researchers, there are also potential conflicts due to perceived threats. These threats are largely influenced by American's focused attention on IP piracy problems in China.

This research begins with a literature review of felt insecurities from both the faculty researchers' and TTO staff's perspectives. This is followed with a discussion of IP piracy violations and the work of cross-cultural teams. Based on these findings, a conceptual theoretical framework which explains this phenomenon is described.

LITERATURE REVIEW

Defining Insecurity as a Perceived Threat

Faculty Researchers' Insecurities

Counterfeits and IP piracy. When Chinese university researchers seek to work collaboratively with American university researchers, there are likely to be perceived insecurities. Legal researchers have noted that as America's legal regime is aimed to protect American intellectual property, it thwarts the optimal foster of innovation (Dreyfuss, 2016). The lack of clarity over IP ownership rights can make American universities unattractive to Chinese students, visiting faculty and other collaborators given the litigious nature of the 1996 Economic Espionage Act (EEA) involving harm to academic exchanges (Dreyfuss, 2016). Academic exchanges between American and Chinese faculty can also be harmed by perceived insecurities about IP piracy and current concerns about counterfeit product markets. It is estimated that 5 to 10% of world trade is counterfeit goods valued at an estimated \$500 billion in lost sales to companies with legal rights to those products (Amine, 2007). There is evidence that IP owners have to raise their prices and quality; and reduce sales in order to attract product demand and compete against Chinese counterfeit products. This evidence may lead to insecurities and distrust at the R&D phase of product innovation and academic exchanges between American and Chinese researchers. At the production phase of tech commercialization, there is evidence that when Chinese multinationals fear losing tech advantages to counterfeits, they fragment their production among multiple local plants to diminish information flow and deter IP infringement; or they may limit the range of technologies that they offer (Sun, 2010, Maskus, 2000, Fink, 2016). This leads to inefficiencies and a reduction in the ultimate technology transfer into the commercial marketplace.

The high incidents of counterfeiting and IP Piracy in the East (China and India) in comparison to the West (America) is likely the result of cultural differences. Owning and protecting IP rights is a Western concept and infringing on IP rights is not viewed as morally wrong in China (Chaudhry, 2009). In fact, although the World Intellectual Property Organization (WIPO) was created in 1967 (WIPO, 2017), IP laws were not adopted in China until the late 1970s and China was not admitted into WIPO until 1980 (Amine, 2007). China did not have patent laws until 1984. Whereas, the American patent protection is included in the US Constitution legislative powers given to Congress signed in 1787 to promote science and the arts (History.com, 2009). Thus, there is nearly 200-year time span between the birth of the American and Chinese IP legal systems.

This cultural difference has presented conflicts between American university researchers and Chinese national researchers in the United States. It has also resulted in race- based hate and discrimination directed toward Chinese students and faculty on university campuses. For example, the racists flyers were posted at the University of Texas at Austin School of Engineering accusing

Chinese students of plagiarizing and in need of special ethics lessons (Herreria, 2017). Yet, the reality is that there is a widespread global problem with consumer complicity to purchase counterfeits, to ignore IP owner legal rights and protections, and to support counterfeit sellers in order to express anti-big business sentiments (Chaudhry, 2009, Tom, 1998). Yet, there are serious concerns in China. The Office of the US Trade Representative (USTR) has China on Section 306 monitoring due to its serious problems with regard to IP rights protection in trade (Piquero, 2005). This does not help American Chinese research relationships. For example, in the software industry, by the year 2001, China had piracy rates of over 90 percent (Ronkainen, 2001). Using cultural value dimensions (Hofstede, 1980), Ronkainen (2001) found that countries with high power distance displayed higher levels of piracy than more equalitarian societies. These types of countries display concerns of interpersonal distrust and feelings of unfair deals. Further, the higher the avoidance of uncertain and ambiguous situations, the higher the rate of piracy (Ronkainen, 2001).

Forty-nine (49) American firms formed an anti-counterfeiting coalition in China. The coalition's purpose was to implement resistance strategies against deceptive product designs, labeling and packaging. However, they are losing the battle (Amine, 2007). Arguably, the American/China IP piracy war increases perceptions of perceived threats to IP rights and in turn to job security for research faculty who rely on the creation and protection of the results of their R&D. It can lead to distrust.

Besides IP rights issues, other problem areas with cultural differences in multicultural research teams include communication issues with accents, fluency, differing attitudes toward authority and hierarchy, indirect versus direct communication, and conflicting decision-making norms. The key to rectifying these communication problems is to acknowledge and discuss the cultural gaps and establish norms (Brett, 2006). Trust is essential to high functioning multi-cultural teams. Having team leaders that understand cultural and language differences and multi-cultural perspectives; and the ability to establish clear norms is essential to building trust in cross-cultural teams (Molinsky, 2016).

American faculty researchers' conflicts with their university TTO staff. To further fuel insecurities, there are issues among the American university technology transfer players. In America, non-tenured faculty have less independence than tenured faculty and considerable voice in influencing university choices (McPherson, 1999). In addition, what is produced in the academy is highly specialized and advances the need for long-term job security (McPherson, 1999). In research universities that offer tenure, non-tenured faculty researchers strive to earn tenure and guard themselves in the process of achieving this goal. A fundamental question that arises is whether the American faculty researcher's participation in university tech commercialization will count toward tenure.

American faculty researchers are evaluated on the basis of their research, teaching and service. Faculty members may choose not to participate in technology commercialization and not to work with their TTO because scholarly work is advocated more so in university policies than commercialization activity which is typically ranked as a service and does not weigh as much in TNP decisions (Markman, 2005, Link, 2008). Since, in research universities, faculty research findings count the most toward tenure, faculty members are very guarded and protective about their research. Getting involved with TTO staff has been deemed an act of delegation on the part of faculty (Jain, 2009). This occurs only after the faculty researcher perceives the TTO staff as trustworthy.

When it comes to TTO staff's insecurity, there are perceived threats to positive performance evaluation outcomes. TTO staff competency is evidenced by their actual educational backgrounds, prior work experience and years of work experience in the TTO. As aforementioned, the faculty researchers have concerns about the TTO staff's competence and their ability to manage the disclosed inventions, gain patent protection, and communicate effectively with industry representations regarding licensing opportunities. Tech transfer is a social knowledge-making action for which professional communication is central to the transfer of the technology transfer (Perkins, 1993). Well, the TTO staff may be equally insecure about these responsibilities. They will gain more confidence and feel less perceived insecurity as they gain more experience and education.

Technology transfer is typically a research administration service located in the research offices of universities. In America, the TTO directors often report to the Vice Presidents of Research. TTO performance is measured by the number of startups and licenses formed. With respect to research administration, some of the challenges include faculty fear of the unknown in that they do not know how their engagement in research and tech transfer will turn. More importantly, they question what is in it for them (Miner, 2003). Problems include not understanding why any new focus on tech commercialization is needed, lack of confidence in leaders and general mistrust. Faculty researchers question why leaders want them to do more when their workload may already be too heavy (Miner, 2003).

One issue is the TTO staff's perception of faculty researchers' motivation to engage in university tech commercialization. TTO directors have listed faculty indifference and ideological resistance as impediments to securing discoveries from faculty inventors (Markman, 2005). While applied researchers care little about increases in university patenting, there is fear among some basic researchers that patenting might get in the way of their research choices (Davis, 2011).

In addition, the time demanded by faculty researchers and university administrators can be problematic. At many researcher universities, TTOs are very demanding, high stress work

environments (Abrams, 2009). These offices operate in crisis mode with deadlines, mounds of paperwork, pressure, budget restrictions and bureaucracy (Hesselton-Mangan, 2003). This is particularly true of universities with larger research volumes. In general, with respect to time management, research administrators like the TTO staff are responsible for inspiring faculty to submit invention disclosures, bolstering the university's research culture, and gaining buy-in to research activities, and training faculty and other personnel about research policies and procedures (Miner, 2003). The time demanded of the TTO staff by their customers depend on their customers' ever changing expectations which need to be managed (Weeks, 2006).

Potential conflicts in American-Chinese research exchanges

PROPOSED THEORETICAL FRAMEWORK

Based on the literature review, a theoretical framework for Chinese American academic tech transfer exchanges was developed. The study of perceived insecurity is complicated. Figure 1 depicts conceptually independent variables that can be and in fact, have been measured to assess individual insecurity distress and how that distress correlates to TTO staff performance, the dependent variable. TTO performance is a measure of licensing revenues and start-up companies formed by the TTOs.

Propositions

Faculty researchers' job insecurity

As per the findings in the literature review, faculty researchers' perceived threats to tenure and promotion are impacted by the following six (6) measures:

1. Whether the research university has policies that allow participation in the university technology commercialization process to count toward tenure and promotion

Proposition 1.1 – The presence of university policies that allow participation in the university technology commercialization process reduce affected distress caused by faculty researcher job insecurity.

2. How the faculty researchers perceive the TTO staff's reputation

Perceptions of TTO staff's reputation are influenced by the faculty researcher's and their peers' previous experience with the TTO staff. Perceptions of TTO staff lack of competence to successfully carry out technology commercialization functions also influences perceptions of TTO staff reputation. These perceptions may be related to evidence about the TTO staff's educational background, size of the organization measured by full time equivalent staff hires

(FTEs), and TTO staff years and quality of prior work experience in technology intellectual property protection, marketing, and licensing negotiations.

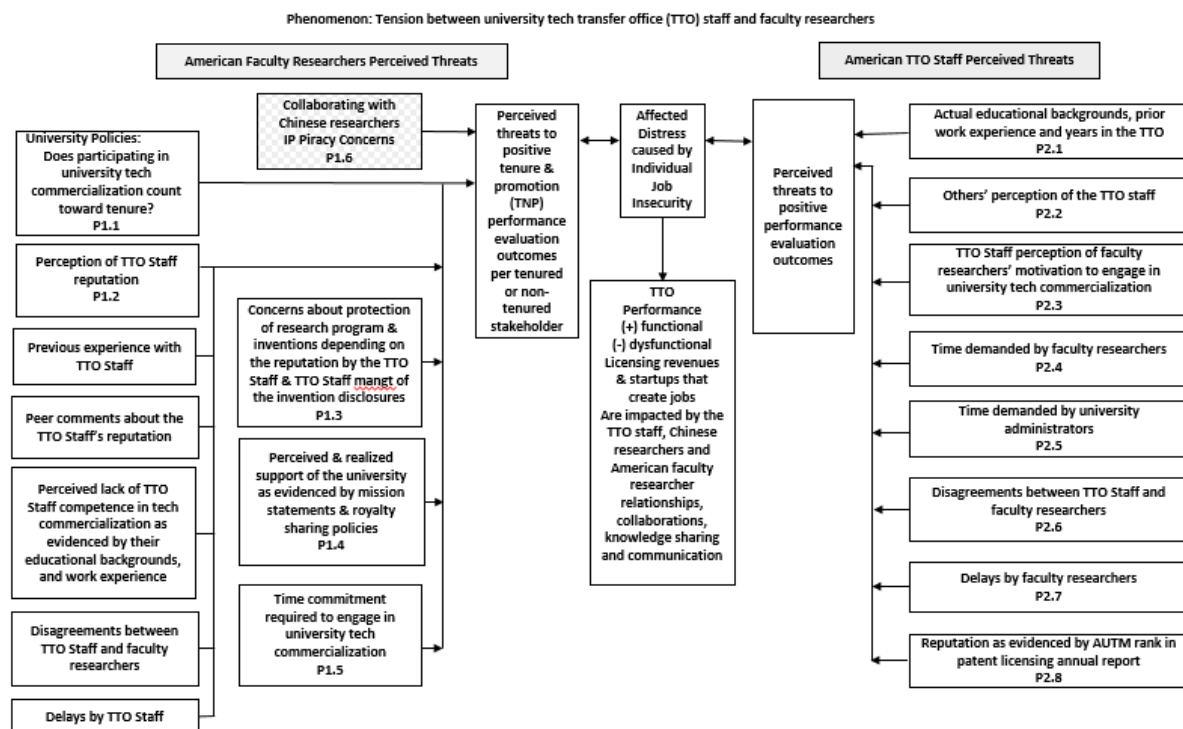


Figure 5: Concept Model for University Tech Transfer Insecurities in Chinese American Academic research exchanges

Proposition 1.2 – Positive faculty researcher perceptions of TTO staff reputation reduce affected distress caused by faculty researcher job insecurity.

- How concerned the faculty researchers are about protecting their research programs and inventions from potential mismanagement by TTO staff

Proposition 1.3 – Positive faculty researcher perceptions of TTO management of faculty researcher inventions and established industry social network relationships reduce affected distress caused by faculty researcher job insecurity.

- Perceived and realized support from the university as evidenced by university mission statements and policies related to funding, royalty sharing, and other incentives and rewards for participating in technology commercialization

Proposition 1.4 – Positive perceptions and realizations of support from the university as evidenced by university mission statements and policies related to funding, royalty sharing, and other incentives and rewards for participating in technology commercialization, reduce affected distress caused by faculty researcher job insecurity.

- Time commitment required to engage in university technology commercialization

Proposition 1.5 – Perceived and realized high amounts of time commitment required to engage in university technology commercialization will reduce affected distress caused by faculty researcher job insecurity.

6. The added layer of complexity with perceived threats of Chinese IP piracy which looms as a concern when American faculty researchers collaborate with Chinese researchers

Proposition 1.6 – Perceived threat of Chinese IP piracy will increase affected distress caused by faculty researcher job insecurity.

TTO Staff's Job Insecurity

TTO staff perceived threats to job security, evidenced by performance evaluations, are impacted by the following eight (8) measures:

1. Actual educational backgrounds, technology commercialization work experience, and years in the TTO

Proposition 2.1 – The presence of actual technology commercialization educational backgrounds, technology commercialization work experience, and years of work in the TTO reduce affected distress caused by TTO staff job insecurity.

2. Other's perceptions of TTO staff competence

Proposition 2.2 –Positive perceptions by others of TTO staff competence reduce affected distress caused by TTO staff job insecurity.

3. TTO staff perception of faculty researchers' motivation to engage in university technology commercialization

Proposition 2.3 – Positive perceptions by TTO staff of faculty researchers' motivation to engage in university technology commercialization reduce affected distress caused by TTO staff job insecurity.

4. Time demanded of the TTO staff by faculty researchers

Proposition 2.4 - Perceived and realized low amounts of time commitment required to work with faculty researchers engaged in university technology commercialization reduce affected distress caused by TTO staff job insecurity.

5. Time demanded of the TTO staff by university administrators

Proposition 2.5 - Perceived and realized low amounts of time commitment required to work with university administrators engaged in university technology commercialization reduce affected distress caused by TTO staff job insecurity.

6. Disagreement between TTO staff and faculty researchers

Proposition 2.6 – Low amounts of disagreements between TTO staff and faculty researchers reduce affected distress caused by TTO staff job insecurity.

7. Delays by faculty researchers

Proposition 2.7 – Low instances of delays by faculty researchers reduce affected distress caused by TTO staff job insecurity.

8. Reputation as evidenced by the Association of University Technology Managers' (AUTM) rank in patent licensing annual report

Proposition 2.8 – Working for a research university that is highly ranked by AUTM's annual licensing survey reduces affected distress caused by TTO staff job insecurity.

Any added threats of intellectual property piracy exacerbates an already tenuous area of conflict.

CONCLUSION

This research is motivated by recent concerns over Chinese piracy of intellectual property. The goal of this research is to provide a conceptual theoretical framework for researching conflicts in academic exchanges between faculty researchers and university TTO staff. In particular, this framework includes the added complexity of potential conflicts due to cultural differences between American and Chinese faculty researchers. Ultimately, with use of this theoretical framework for research, this body of research can reveal guidelines to alleviate conflicts for use by technology managers and academic researchers who are responsible for engaging in university technology commercialization. Tech transfer can be viewed as a process that draws out stressors and result in felt job insecurity. Job insecurity is proposed to be felt by both the TTO staff and the faculty inventors. This research aims to provide a better understanding of what can reduce affected distress and result in subsequent improved university tech transfer performance.

The significance of the university tech transfer process for intellectual property managers is the emphasis tech transfer paces on collaboration and knowledge sharing. It is proposed that any lack of communication, social exchanges, motivation, engagement, streamlined processes, supportive organizational cultures, or competencies on the part of the TTO staff or faculty researchers can result in felt job insecurity and distress. Also, people who lack personality characteristics that give them an aversion to job insecurity can experience the stress. It is advocated that all of these factors need to be examined further in a holistic way.

This study will help universities hone in on the causes of faculty researcher and TTO staff perceived job insecurity. This paper provides a review of the top perceived impediments to faculty researcher participation in the university technology transfer process. It is theorized that job insecurity may cause both the faculty researchers and TTO staff to experience perceived distress that hinders their

ability to build stronger working relationships in the technology commercialization arena. Job insecurity is a perceptual phenomenon (Sverke, 2002, Greenhalgh, 1984) and is defined as an affected distress in alignment with stress theory which teaches that the anticipation of a fundamental and unwanted event leads to strain (Sverke, 2002). This study is very important to the field of university technology transfer because job insecurity can lead to reduced work effort, propensity to leave, and resistance to change (Greenhalgh, 1984). This research focuses on job insecurity among university faculty researchers and technology transfer office (TTO) staff. Many research universities have TTOs to support technology commercialization activities. These activities include soliciting invention disclosures from academic inventors, evaluating the disclosures for marketability, patenting inventions, and licensing intellectual property (IP). IP might be licensed to start-up businesses or established firms big and small.

This paper examines the top impediment to faculty researchers engagement in the process: faculty indifference, ideological resistance, poor discoveries, limited TTO budget, bad TTO reputation, and university bureaucracy (Markman, 2005). Other impediments examined are lack of trust in the process, delays, building and guarding research collaboration funding relationships, and non-tenured faculty researcher concerns. In addition, this paper also examines the theoretical framework for the study of job insecurity related to university technology transfer. Personality, motivation, social exchange, social network, power dominance, worker resistance, and communication theories are discussed. A theoretical conceptual model of the phenomenon is also provided and discussed. Fourteen (14) related propositions are presented as groundwork for a future empirical study to test this theoretical concept.

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BLACK AMERICANS PAST AND PRESENT CREATED FRUGAL INNOVATIONS AND EMBRACED CIRCULAR ECONOMY PRINCIPLES: THE MARKETING DILEMMA

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ABSTRACT

Frugal innovation is the practice whereby the rich learns from innovations developed in poor countries, and there is purportedly a current rivalry between India and China in the frugal innovation arena. This research advocates that the concept of frugal innovation did not originate in Asia or India. The practice of the rich taking the poor's innovations is not new. In particular, Black American slaves and freed slaves developed a number of inventions in poverty conditions. It is imperative that frugal innovation research be more historically accurate so as to reduce the marginalization of contributions developed by poor innovators and to increase the more widespread embrace of circular economy principles. If a poor innovator resides in a rich country, then that innovator should not be excluded from the frugal innovator category if frugality was indeed used to innovate.

Keywords: intellectual property, black inventors, African American inventors, frugal innovations, circular economy, technology commercialization, research and development, technology development, entrepreneurship

INTRODUCTION

"And when one considers the enormous part played by American inventors in the economic, industrial and financial development of our country, it became a matter of importance to ascertain what share in this great work is done by the American Negro. The average American seems not to know - Not knowing it, he does not believe it, and not believing it he easily advances to the mental attitude of being ready to assert that the Negro has done absolutely nothing worthwhile in the field of invention."

- Henry E. Baker

Assistant Examiner, US Patent and Trademark Office (Baker, 1917)

Several definitions of frugal innovation have been published. Such definitions include the use of local resources to develop and deliver affordable, functional technological products that provide value

(Chakrabarti, 2014, Prabhu, 2017). Frugal innovation involves innovating cost effectively and quickly under severe resource constraints with local resources in an affordable way (Chakrabarti, 2014, McNicoll, 2014, Radjou, 2012). Frugal innovation is not merely a representation of the Indian concept of Jugaad which is focused on makeshift, short term problem solutions. Instead, it is focused on innovating with efficiency, low cost, safety standards and quality standards (Chakrabarti, 2014). Add to this the tall order of sustainability which includes profitability, the support of environmental aims, and the social benefits such as affordability (Rao, 2013, Chakrabarti, 2014, Wohlfart, 2016).

Frugal innovations strip away complexity, are simple changes that improve stakeholders' experiences, deliver great value at low costs, and can help companies generate new revenues (Hemsley, 2016). Frugal innovations make use of reduced amounts of materials, repurpose, reuse and are cheaper (McNicoll, 2014). Frugal innovations are products and services created by local innovators adopted to the needs of their local population (Lehner, 2016). Further, frugal innovations apply human ingenuity, create faster solutions, create better solutions, create cheaper solutions, and are scalable (Prabhu, 2017). Frugal innovations require little financial investments (Prabhu, 2017, Hemsley, 2016). Researchers have acknowledged that while frugal innovations are usually associated with emerging countries including India and China, it is not a new phenomenon because companies in Silicon Valley and Santa Clara University's Frugal Engineering Innovation Lab has been innovating frugally as well (Wohlfart, 2016). Yet, these researchers do not go far enough back in American history. To Other researchers have recognized that in times of craftsmanship and hand production before the industrial revolution, material waste was unknown (Strasser, 2000, Lieder, 2016). This research study provides examples of frugal innovations found in India and in Kenya. It compares these innovations to innovations developed by Black American inventors. It is argued that Black inventors during slavery and the reconstruction period post-slavery were indeed frugal innovators. Further, these frugal innovators also embraced circular economy principles. The current scholarly emphasis on frugal innovations originating in India and Asia is harmful because perhaps much can be gained in achieving the mainstream implementation of circular economy principles if more diverse populations were studied.

EXAMPLES OF FRUGAL INNOVATIONS IN DEVELOPING COUNTRIES

There are numerous examples of frugal innovations in India and China. Ways to improve the efficiency of the frugal innovation product development process have been published. The goal is to find ways to transfer and accelerate the development of frugal innovations perhaps in a cookie cutter manner (Lehner, 2016, Rao, 2013). For instance, a systematic problem solution pattern approach has

been developed (Lehner, 2016). The goal is to find ways to transfer and accelerate the development of frugal innovations perhaps in a cookie cutter manner.

Examples of frugal innovations in India are provided in Table 1. While some of these innovations have improved the lives of their frugal innovators, some have not. For example, Mohamed Saidullah, the inventor of a floating bicycle still lives in poverty (McNicoll, 2014). Looking to frugal innovations to eradicate rural poverty is being researched. In fact, since one percent of the world's population holds more than 35% of the wealth, it has been advocated that frugal innovations may be the key to eradicating economic inequality (Prabhu, 2017).

Frugal Innovator	Frugal Innovation	Source
Tata Chemical	No power drinking water filter Low cost of \$0.65 for a family of five	(Caploe, 2010)
India Institute of Technology	Laptop Low cost of \$35	
Ayas Shilpa	Suspension bridge Low cost of 1/10 conventional price	
Muruganatham	Sanitary napkins Low cost	
	Waterwheel carries 50 liters of water; low cost \$25-30 at 1/3 conventional price	
Prajapati	Miticool Fridge made of clay that cools food up to 5 days with no electricity	(McNicoll, 2014)
Bharti Airtel	Mobile phone calls; low cost	
Mohammad Saidullah	Award winning floating bike	
M-Pesa	Service enables unbanked people to send and receive money through mobile phones	(Prabhu, 2017)

HISTORY OF BLACK FRUGAL INNOVATIONS IN NORTHERN AMERICA

Although American history lessons teach that Eli Whitney invented the cotton gin, some historians believe that a slave named Sam invented this combing device to alleviate the harsh laborious conditions associated with removing seeds from picked cotton. In addition, the slave named Ned of inventor Oscar J.E. Stuart developed the innovative double plow (Aoki, 2007, Yancy, 1984). In 1858, the United States Attorney General confirmed a court decision refusing to grant patents to slaves' inventions to the slaves or their slave owners. Yet, when the slaves Isaiah and Ben Montgomery invented a boat propeller, their slave owner recommended to the United States Congress an amendment to the patent law to allow the slave owner to receive patents for inventions by slaves

(Baker, 1917). Although America's poor Black slaves were not allowed to file for patent protection, many poor white inventors between 1739 and 1819 were able to achieve wealth and recognition with patented inventions (Aoki, 2007).

Blacks were impoverished during slavery and during the reconstruction period when slaves were emancipated. They had no choice but to be frugal when engineering and inventing solutions to problems that they faced in harsh work conditions. The Black American southern Norbert Rillieux invented a way to refine sugar by developing a vacuum pan in 1846 in Louisiana. James Forten invented a better way to handle sails on sail boats in 1842.

In 1853, Jan Matzeliger developed a way to hold shoes on their lasts, grip and pull the leather down to the heel of the shoe, and drive in nails (Kaplan, 1955, Baker, 1917). This invention was bought by the United Shoe Machinery Company and reduced the cost of making shoes by more than fifty percent. This certainly meets the definition of frugal innovation. It resulted in increased worker wages, decreased worker hours, improved factory conditions and made the President of the United Shoe Machinery Company a multi-millionaire (Baker, 1917).

American slavery persisted between 1619-1865. The American Civil War over whether or not to continue the institution of slavery in American was from 1861-1865 (Williams, 2004). From the beginning, the titans of industry looked to Black ex-slaves for a source of labor and assistance. Interestingly, when slavery ended, 4.4 Million freed slaves needed to be educated. The titans of industry provided charity to Historically Black Colleges and Universities because they wanted a say in how the former slave laborers would be educated since they had a continued need for this labor force (Hamilton, 2016). The industrial titans included, but were not limited to:

- ⊙ Investor George Peabody (1867 Peabody Fund),
- ⊙ Textile tycoon John Slater (1882 Slater Fund),
- ⊙ John D. Rockefeller (1902-1964 General Education Board (GEB) for rural schools and the modernization of farming),
- ⊙ Sewing machine tycoon Thomas White, and
- ⊙ Sears Roebuck's Julius Rosenwald (Williams, 2004).

Elijah McCoy invented a way to hold lubricant for locomotive trains with a novel cup in 1872. Granville T. Woods invented the steam boiler furnace and air brakes in 1884 and 1902. Purvis invented a method of making paper bags; A.P. Albert invented a cotton picking machine; Andrew Hilyer invented the hot air register; Andrew Washington invented the shoe horn; and Joseph Lee invented a dough kneading machine (Baker, 1917).

In an 1894 speech before Congress, the United State House of Representative member George Washington Murray read the names of 92 southern American Black inventors who contributed to

America's southern economic and technological progress. The list of 92 inventors came from a Black man, the United States Patent and Trademark Office's Assistant Patent Examiner Henry E. Baker's research (Sinclair, 2004). All of these innovations were developed under resource constraints. There were common instances of financial hardships as part of the hard challenge Black Americans faced to earn livings. It was particularly hard given the amount of time it takes to secure patents. Many of the Black inventors did not get any reward for their inventive genius (Baker, 1917).

Given that the contributions of Black inventors has been well researched and documented (Ives, 1987, Jenkins, 1996, Sullivan, 1998, Williams, 1978); and the claims that frugal innovations were newly discovered in 2006 by Ghosn with observations of frugal engineering in India (Chakrabarti, 2014) is historically problematic. Frugal innovations clearly go back to the period of slavery and reconstruction in America and perhaps even earlier in history.

Renault-Nissan has developed electronic cars and low cost vehicles using frugal engineering observed among India's frugal innovators (Radjou, 2012, Radjou, 2015). General Electric and Tata Sons are also multi-national companies producing low cost products by harnessing frugal innovations. For 12 years, Professor Anil Gupta's Honey Bee Network has searched rural India for frugal innovators and inventions to commercialize (McNicoll, 2014). During slavery and the post-slavery period of reconstruction, American slave owners and factory owners did the same. As aforementioned, an example is the use and commercialization of the Black inventor Jan Matzelinger's frugal shoe lasting device.

Although many of the Black frugal innovators were not called entrepreneurs or known for having so-called startups, through necessity they worked to exploit limited resources and create new market opportunities. They did so in a manner which is closely aligned with the proposed *Autotelic Capabilities Framework* (Karagouni, 2013). This framework has the three (3) dimensions of bricolage, improvisational and transcendental capabilities. The bricolage capability helped the Black American frugal innovators to successfully tap their competence and knowledge, re-employ, reframe and recombine creatively. The improvisational capability is the ability to repeatedly rework initial concepts until a venture was launched. The transcendental capability of Black American frugal innovators helped them recognize and analyze their limited material resources; and tap into their knowledge and technical abilities. In some instances, entrepreneurial results were achieved. But often, the Black American frugal innovators were merely striving to make their strenuous workloads lighter.

BLACK AMERICAN FRUGAL INNOVATORS EMBRACE CIRCULAR ECONOMY PRINCIPLES

A circular economy embraces material and product reduced use, reuse, recycling, redesign, remanufacture, and the repair of old goods. There are three (3) specific principles advocated in the Ellen MacArthur Foundation's Outline of a Circular Economy which include:

1. Preserving and enhancing natural resources by controlling and balancing the stocks of renewable resource flows through regeneration, virtualization and exchange;
2. Optimizing resource yields by circulating and optimizing the use of products, components and materials to regenerate, share, and creating a close loop economy; and
3. Revealing and designing-out negative externalities to foster system effectiveness (Ellen MacArthur Foundation)

These practices close the loop in industrial ecosystems and minimize waste (Stahel, 2016, Winans, 2017). Certain features of the circular economy principles such as the more efficient use of resources, combined with waste prevention and regional job creation were introduced by Stahel and Reday in 1976 (Stahel, 1981, Geissdoerfer, 2017). These principles were popularized in China in the 1990s (Winans, 2017). Over the past 12 years, the United States, China and South Korea have been researching reuse and remanufacturing. In addition, since 2010, the Ellen MacArthur Foundation has researched and advocated for the implementation of a circular economy. Further, since 2015, the European Parliament has been researching the topic.

Although there has been a lot of activity in recent years, again, Black American frugal innovators have embraced material and product reduced use, reuse, recycling, redesign, remanufacture, and the repair of old goods for hundreds of years. They had limited resources that they coveted and saved. They strived to save energy and their contributions created jobs. While some believe that the implementation of the circular economy idea is purportedly 'slow to gain traction' (Stahel, 2016), others believe that at least the term *circular economy* is gaining traction among academia, industry, and policymakers (Geissdoerfer, 2017). Most authors that have researched the circular economy principles focus on environmental performance related to resource inputs, waste and emission outputs, rather than a holistic view of sustainability (Geissdoerfer, 2017). Yet, perhaps researchers are not looking in the right places to find frugal innovators like those among Black Americans that have embraced circular economy principles for hundreds of years out of poverty conditions, necessity, scarcity and as part of their cultural identity.

The purported slow widespread, mainstream embrace of the circular economy idea is due to fear and unfamiliarity of embracing product reduced use, reuse, recycling, redesign, remanufacture, and the repair through socialization (Stahel, 2016). This is because the American economy is incredibly

focused on the linear supply chains and economies of product manufacturer, use and disposal. This is an imperfect economic framework which fosters a lack of corporate accountability. With regard to sustainability, the lack of corporate accountability does not adequately respond to societal ecological issues and economic issues such as poverty (Mohammed, 2013). In our resource constrained world, accountability needs to be to all stakeholders, not just shareholders. Corporations need to become more like truly 'social businesses' that recognize their important role in providing potential solutions for sustainability (Mohammed, 2013). Herein, it is argued that researchers of frugal innovations and advocates of the circular economy idea need to broaden their search for examples well beyond India and China. The study of Black American and other culturally diverse frugal innovators past and present can be a way to find potential solutions.

This more inclusive approach is related to the notion of *inclusive development* which advocates going beyond applications of the social pro-poor theory, and embracing social, ecological and relational theories that inclusive development can build on (Gupta, 2017). The pro-poor theory advocates that enhanced human wellbeing can be achieved if poor people are empowered to establish their own priorities with a human rights-based approach. Circular economy principles and frugal innovation practices are examples of ecological theories and approaches supportive of inclusive development (Gupta, 2017).

Reused, recycled, redesigned, remanufactured, and repaired goods are viewed as lacking quality. New, brand products are viewed as having better quality. Mainstream Americans are inordinately comfortable with materialism, status symbols and therefore are squeamish when considered circular economy principles (Hood, 2016). Yet, arguably, there is more to this circular economy image problem. In order to make the embrace of circular economy principles mainstream, there needs to be improved green marketing to improve the aforementioned image problem. Moreover, this green marketing will require a closer study of the ecologically conscious consumers (ECCs) market segment (Tilikidou, 2013). The Black American frugal innovators seem to be marginalized and not included in studies of this market segment. There is a limited understanding and incomplete profile of ECCs. This is a problem that needs to be addressed in order for the most appropriate marketing and business communication strategies to be chosen (Tilikidou, 2013).

DISCUSSION OF FINDING

First, there is a need for a closer study of frugal innovators and ways to make frugal innovations more appealing to consumers in a more widespread manner. There has been advocacy toward increasing academic research for ways to implement a circular economy more widespread (Stahel, 2016). Herein, it is recommended that instead of studying large industrial corporations and small to medium size

enterprises, the focus should be on the study of individual consumers' cultural identities. For example, it is hypothesized that individuals such as Black American frugal innovators, both past and present, are frugal and embrace circular economy principles because these principles have been embraced and valued in the Black American culture since slave days and perhaps earlier in Africa. The examples of Black American slaves and freed slaves that were frugal innovators has been provided herein. Examples of present day Black American frugal innovators can be found through grassroots searches and a concentration in academia can be found among emerging research institutions that were established once slaves were freed. There are approximately 100 of these Historically Black Colleges and Universities that are still in existence today. Although many are focused on teaching rather than research and development, there is a growing number of Black inventors that serve as faculty in these institutions (Hamilton, 2016, Hamilton, 2017a, Hamilton, 2017b). In addition, there are other examples among other diverse groups such as Hispanics and American Indians.

Second, there is a need for more widespread marketing of frugal innovations and circular economy principles that showcase a diverse population of frugal innovators. This research advocates that frugal innovators who live in poverty conditions are not limited to just people from India and Asia. The way Black Americans, past and present, and other diverse populations innovate under frugal conditions should be studied much more closely and marketed more readily. The identification, marketing and promotion of diverse populations of frugal innovators and innovations need to be added to the Outline of a Circular Economy promoted by the Ellen MacArthur Foundation as noted in the amended Outline of a Circular Economy System in Figure 1.

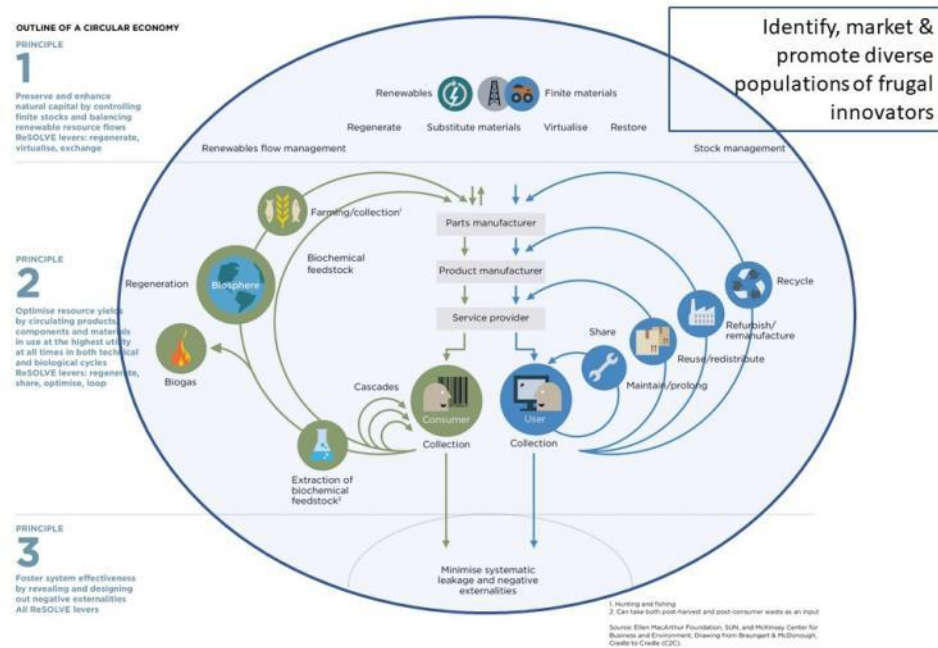


Figure 1. Outline of a Circular Economy System Amended

It is hypothesized herein that improved research and marketing will help these innovations become more popular and more widely embraced. For example, transformational marketing which drives organizational, social and environmental changes can have a more strategic role as an interface between organizations and consumers in sustainability and environmental protection since it requires a study of human behavior and consumption (Baker, 2013). With regard to children's socialization in consumption, it is particularly important to market circular economy principles and examples of these principles in practice. Since it is established that children can identify brands while watching television and surfing the internet (Carlos Estrela, 2014), circular economy principles and examples of these principles in practice like the Black American frugal innovations should appear in television and internet marketing advertisements.

Further, as these examples of specific value chains, material flows, and frugal product development are identified and aligned with circular economy principles, they need to be introduced into environmental policy. An example of an environmental policy would be to certified frugal innovative products and practices. The certification of sustainably managed timber products in Greece was studied and the capture of green consumers through green marketing was advocated (Papadopoulos, 2010).

CONCLUSION

Frugal innovation is the practice whereby the rich learns from innovations developed in poor countries and there is purportedly a current rivalry between India and China in the frugal innovation

arena. This research advocates that the concept of frugal innovation did not originate in Asia or India. The practice of the rich taking the poor's innovations is not new. In particular, Black American slaves and freed slaves developed a number of frugal inventions in harsh poverty conditions with limited resources. It is imperative that frugal innovation research be more historically accurate so as to reduce the marginalization of contributions developed by poor innovators. If a poor innovator resides in a rich country, then that innovator should not be excluded from the frugal innovator category if frugality was indeed used to innovate.

Further, it is argued that Black American inventors during slavery and the reconstruction period post-slavery were indeed frugal innovators. Further, these frugal innovators also embraced circular economy principles. The current scholarly emphasis on frugal innovations originating in India and Asia is harmful because perhaps much can be gained in achieving the mainstream implementation of circular economy principles if more diverse populations of frugal innovators were identified, studied, marketed and promoted. In addition to recognizing the frugal innovations that are being developed in rural developing countries, it is important to recognize the contributions of Black frugal innovators because doing so may help inspire young people to follow this path. Carrying this torch from generation to generation may bolster the sustainability of the frugal innovation movement.

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A CULTURE OF INNOVATION COULD ALSO TAKE PLACE IN SMALL BUSINESSES - THE ISRAELI EXPERIENCE

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ABSTRACT

The study demonstrated that small businesses in the industry and craft sectors that seek to promote innovation must implement processes for developing an innovation culture. Interestingly, these processes contribute mainly to product and process innovation and less to marketing and organizational innovation. The empirical study was conducted in Israel in 2016 on a sample of 202 businesses in face-to-face interviews.

This research expands the body of knowledge on cultural processes for promoting innovation in this group of businesses, which has rarely been the focus of studies on innovation.

The study may contribute in a practical manner to assisting small businesses in the development and implementation of appropriate cultural processes for promoting innovation, and as a result, contribute to overall regional economic growth.

Keywords: Small businesses, innovation, cultural processes.

1. INTRODUCTION

This study addresses the contribution of innovation cultural processes to the promotion of innovation in small businesses. This group of businesses, despite its unique characteristics, has received little attention in the literature regarding innovation. In a rapidly changing global world, innovation is vital to all businesses (Marques & Ferreira, 2009; Porter, 1996; Teece, Pisano, & Shuen, 1997), but the innovation process carries risks and its management is complex (Chesbrouge, 2003), making it particularly difficult to promote innovation in small businesses, in view of their resource constraints and size disadvantages.

Small businesses must cope with various hardships that hinder their innovation, such as difficulty in obtaining suitable talent, lack of appropriate information and infrastructure, and lack of funding (Harel & Kaufmann, 2016; Kleiknecht, 1989; Lee, Park, Yoon, & Park, 2010; Van der Vrande, De Jong, Vanhaverbeke, & De Rochemont, 2009; Wu et al, 2016).

Previous studies have indicated the relationship between the size of the business and its innovation activity, so that in larger businesses employing a greater number of employees, the innovation activity is greater (CBS, 2015; CIS, 2017). Most studies regarding business innovation view small and medium-sized enterprises (SME) as one cohesive group. Many of these studies focused on product and process innovation (Oke, Burke, & Myers, 2007), as well as on businesses in technological fields and early stages of the business lifecycle (Lee et al., 2010). The current study focuses on small businesses, distinguishing between four types of innovation (product, process, marketing, and organizational), and explores the innovation at different life stages of the business. The study does not include businesses in the high-tech sector, whose activities are by nature concerned with innovation.

The purpose of this study was to examine the contribution of innovation cultural processes (hereinafter **cultural processes**) aimed at promoting innovation in small businesses in the industry and craft sectors. The study empirically examines a theoretical model that presents the relationship between these processes and the level of innovation in the business.

2. LITERATURE REVIEW

2.1 Addressing Innovation in Small Businesses

Previous studies compared the innovation dynamic in different business groups and have indicated the relationship between the business size and its innovation activity (CBS, 2015; CIS, 2017). Most of the studies refer to small and medium-sized enterprises as a single business group, despite considerable differences in their size and definitions in different countries. One contribution of this study is its approach to the uniqueness of cultural processes that are applied in small businesses.

2.2 Characteristics of Small Businesses

According to the EU Commission, small businesses are defined as businesses that employ up to 50 employees (European Commission, 2003). Small businesses are often characterized by limited regional activity and relatively small market share, and their employees are frequently located in one building. Moreover, these businesses are characterized by autonomy, as they are not part of a corporate group, and thus the owner has unrestricted authority and effective control over all business activity (Carson, 1990; Schollhammer & Kuriloff, 1997). Nonetheless, the most important distinguishing characteristic of small businesses is their unique management style. Management in small businesses is personal, as the manager personally knows each employee, is involved in every aspect of managing the business, and often does not include others in decision-making processes (Carson, 1990; Miller, 1983; Schollhammer & Kuriloff, 1997).

A large segment of small businesses is family-owned and operated by the primary shareholder (Coleman & Carsky, 1999). In such cases, the business manager often views the business

both as a means of achieving personal goals and as a source of familial income (Stewart, Watson, Carland, & Carland, 1999).

2.3 The Importance of Small Business to the Economy

Small businesses are perceived as an important growth engine for the economy, responsible for creating a significant portion of new jobs (Henrekson & Johansson, 2010, OECD, 2009). In the ever-changing economic environment, the advantages of small businesses are expressed in flexibility, dynamism, rapid response, and adaptability to change in this environment (Tzadik, 2007). The creativity of these businesses fuels entrepreneurial spirit and economic growth (Savlovski & Robu, 2011).

At the same time, according to Henrekson and Johansson (2010), only a small group of small businesses that grow rapidly because they are innovative is responsible for economic growth. Therefore, it is crucially important to understand processes for promoting innovation in small businesses, in order to expand this limited group of businesses and thereby contribute to the growth of the economy.

2.4 Cultural Processes

According to Nonaka (2007), successful businesses consistently generate new knowledge, disseminate it throughout the organization, and rapidly incorporate it into new technology and products. Nonaka claims that it should be recognized that the creation of new knowledge is not simply a matter of processing objective information. Rather, it depends on personal tacit knowledge as well as subjective insights, intuitions, and hunches of individual employees at all levels of the organization. Only the creation of a suitable organizational culture that encourages innovation will make these available for use by the entire organization. Nonaka also argues that new knowledge begins with individuals, and to make the personal knowledge available to others is the central activity involved in creating knowledge in the business.

Tacit knowledge consists in part of beliefs, technical expertise, and skills, which cannot always be accurately expressed. Therefore, an organizational culture that encourages communication and knowledge sharing assists in translating hidden knowledge into explicit and clear knowledge that can be used. The internalization of explicit knowledge by all the individuals in the organization will enrich their personal knowledge, thus contributing to the continued development of a “spiral of knowledge” of increasingly higher levels through which the knowledge that has been internalized and accumulated will serve other innovative ideas. According to Miron, Erez, and Naveh (2004), organizational culture that supports innovation encourages employees to find new ways to deal with problems while taking risks and explore new ideas even when the result is unclear. A culture that supports innovation makes it possible to translate creative ideas into actual innovation.

Dobni (2008) defines organizational culture as a framework of shared values and beliefs for employees at all levels of the organization that are reflected in its characteristics. Organizational culture that supports innovation includes behavior that demonstrates an appreciation of creativity, risk taking, freedom, teamwork, value seeking, communication, trust, and respect.

Tellis (2012) and Tellis, Prabhu, and Chandy (2009) also argue that organizational culture is one of the principal factors that affect innovation in organizations, despite the difficulty in measuring it. The researchers define organizational culture as a basic set of approaches and practices shared by members of the organization, and claim that a culture that fosters innovation will assist the business to stay ahead in the long term. Organizational culture is a unique product that develops slowly within the organization, cannot be determined or dictated by management, is not easily defined, and is difficult to transfer between organizations.

According to Skarzynski and Gibson (2013), there is no one way to organize business innovation. Each organization has elements of leadership, skills, infrastructure, values, culture, and organizational processes, and the challenge is to adapt these components to an innovation framework that is compatible with the organization and its objectives. According to the researchers, every individual in the organization can become an innovator by receiving encouragement and assistance with tools that the organization provides, for example training for creative thinking, allowing employees to take breaks in accordance with their own judgement, encouraging the proposal of new ideas, and so on. In addition, the organization should encourage dialogue and communication around the subject of innovation and integrate considerations regarding innovation capabilities into the hiring process of new employees and the employee remuneration system. In order for innovation to be accepted as a value in the organization, it must be clear and concrete to the employees. In addition, internal adjustment is required in the organization between structure, processes, the remuneration system, and the management's commitment and behavior, so that the employees will be convinced over a long period of time that their ideas are accepted and implemented in the organization, that initiative and risk-taking are rewarded, and that it is permissible to fail in the implementation of an idea and not be punished (Skarzynski, & Gibson, 2013).

Terziovski (2010) reinforces the claim that developing an organizational culture that encourages innovation is an integral part of the innovation process. This culture can be measured by examining the business's reward system for creativity, focusing on teamwork, encouraging informal employee meetings and interactions, encouraging employees to monitor their own performance, continuously experiment with new ways of doing things, and share knowledge.

In previous studies, the contribution of cultural processes to innovation was examined primarily in large businesses. The current study seeks to examine the extent to which cultural

processes are carried out in small businesses and explore their contribution to levels of different types of business innovation.

3. RESEARCH MODEL AND HYPOTHESES

Based on the literature review, we formulated a theoretical model that presents the relationship between cultural processes and levels of innovation in small businesses in the industry and craft sectors.

The model relates to the business characteristics and to the characteristics of the business manager, which may affect the level of innovation in these businesses. The model relates to four types of innovation: product, process, marketing, and organizational. Figure 1 below shows the model for promoting innovation in small businesses in the industry and craft sectors.

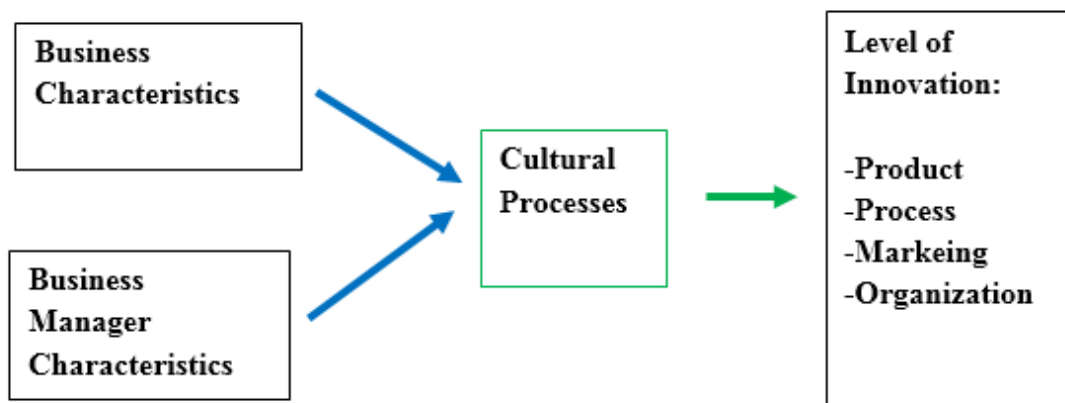


Figure 1: Model for promoting innovation in small businesses in the industry and craft sectors.

Model variables

Dependent variables

The dependent variables relate to the level of innovation in the four types of innovation in the business.

Independent variables

The Cultural processes

Control variables

A. Business characteristics: size, age, level of human capital, level of export sales, and rate of sales from subcontracted work

B. Characteristics of the business manager: managerial experience, number of businesses he has managed, and being the owner of the business

Research hypothesis

The research hypothesis has been formulated for simplicity in general, but will be examined in relation to the level of each type innovation separately.

Previous studies have shown that organizational culture encourages innovation, enables creative ideas to be translated into innovation performance, and facilitates the translation of tacit knowledge into knowledge that is explicit and available to the business. Organizational culture that encourages innovation is an integral part of the business innovation process.

The contribution of cultural processes to business innovation has been examined mainly among large businesses. The current study examines whether these processes are also implemented in small businesses, and if so, in what manner and to what extent. Moreover, the study examines the contribution of these processes to the level of different types of innovations. Thus, our research question is: Does the degree of implementation of cultural processes in the business have a positive impact on the level of innovation in small businesses in the industry and craft sectors?

This question will be examined using the following hypothesis:

The greater the extent of cultural processes in the business, the higher the level of innovation.

4. RESEARCH METHODOLOGY

The sample

The sample included 202 small businesses in the industry and craft sectors in Israel that employ between 10 and 50 employees. The data was based on the Israeli Industry and Craft Association, which includes the details of all small businesses in these sectors, which by law are incorporated into this organization.

Data collection

Data collection took place over the course of three months in 2016 and was conducted using a questionnaire divided into three parts: innovation in the business, cultural processes, and characteristics of the business and the business manager.

Innovation in the business

This section addresses the level of each of the four types of innovation in the business (CBS, 2012). For each type of innovation, the level of innovation was measured according to four degrees of innovation related to market presence (Oke et al., 2007). First-degree innovation indicates a significant improvement on an existing product, process, or method. Second-degree innovation indicates products, processes, or methods that are new to the business, but exist in the local market. Third-degree innovation indicates products, processes, or methods that are new both to the business and to the local market. Fourth-degree innovation indicates products, processes, or methods that are new to both the business and the global market.

The business managers were asked to indicate the amount and degree of each type of innovation implemented in the business in the past three years. The level of each type of innovation was calculated based on a weighted index of the number of innovations and the degree of innovation (Bobko, Roth, & Buster, 2007; Miron-Spektor et al., 2011).

Cultural processes

The cultural processes include ten managerial practices. The first six are based on a validated index from a study by Terziovsky (2010), while the other four are based on Skarzynski and Gibson (2013). The practices are: encouraging employees to engage in informal meetings, monitor their own performance, and share knowledge, focus on teamwork, continuously experiment with new ways of doing things, including a component of creativity in employee remuneration (Terziovsky, 2010), discussing innovation in meetings with employees, encouraging employees to propose new ideas, implementing employees' new ideas, and incorporating the consideration of creativity and innovation capabilities into the hiring process of new employees (Skarzynski, & Gibson, 2013). The examination of internal reliability using Cronbach's alpha, obtained indicated high internal reliability of the index that included the ten items. The managers were asked to assess the extent to which each of the ten cultural processes exists in the business on a Likert scale (1–5). The index used to examine the contribution of cultural processes to the innovation in the business is presented in Table 1, below.

Table 1: Measures for examining the contribution of cultural processes to the innovation in the business

The Processes in the Measure	
a.	Encouraging employees to hold informal meetings
b.	Encouraging employees to monitor their own performance
c.	Encouraging employees to share knowledge
d.	Focusing on team work
e.	Encouraging initiatives for examining new ways to carry out tasks
f.	Including creativity as an element of employee's remuneration
g.	Discussing innovation in meetings with employees
h.	Encouraging employees to propose new ideas
i.	Implementing employee's new ideas
j.	Incorporating the consideration of creativity and innovation capabilities into hiring process of new employees

Characteristics of the business and the business manager

The characteristics of the business are: size (the number of employees), age, level of human capital (the proportion of employees with engineering or scientific backgrounds), level of sales for export, and rate of sales from subcontracting. The characteristics of the business manager are: managerial experience, number of businesses he has managed, and being the owner of the business.

5. FINDINGS

The findings are presented in three parts. The first part presents the characteristics of the businesses and the business managers. The second part presents the correlations between all the research variables and the level of innovation in the business. The third part presents the regression analyses that examine the contribution of cultural processes to the level of each type of innovation.

5.1 Characteristics of the Businesses and the Business Managers

Businesses characteristics

Half of the businesses have between 10 and 19 employees, while one quarter have between 20 and 29 employees and another quarter have between 30 and 50 employees. The average number of employees is $M=22.7$ ($SD=13.1$) and the average age of businesses in the sample is $M=28.3$ ($SD=14.2$).

Thirty-seven percent (37%) of the businesses have no employees with an engineering or scientific background, and in only 13% of the businesses more than 20% of their employees have such backgrounds. Seventy percent (70%) of the businesses in the sample do not export their products and in less than 9% of them exports comprise over 50% of their sales. Furthermore, 40% of the businesses work as subcontractors.

Characteristics of the business managers

The average number of years of management experience was $M=26.9$ ($SD=10.7$). More than 75% of the business managers had managed only one or two businesses, indicating that despite many years of experience, their management experience is not diverse. This finding can be explained by the fact that in 90% of the businesses in the sample, the manager of the business was also its owner.

5.2 The relationships between the research variables and the level of innovation

Cultural processes and the level of innovation

The distribution of businesses in the sample according to the extent to which cultural processes are implemented is presented in Figure 2, below.

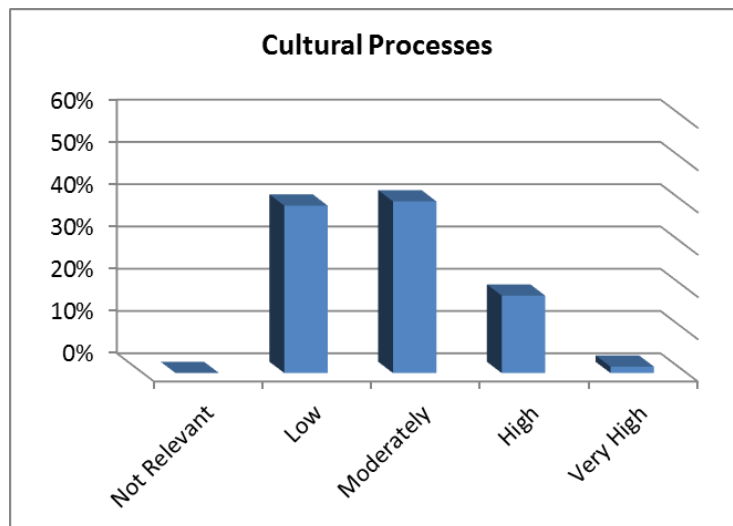


Figure 2: The distributions of businesses in the sample according to the extent to which cultural processes are implemented

Figure 2 shows that in all businesses there was a cultural process of some kind, and that in about 60% of the businesses, these processes took place to a moderate extent or higher. The correlation between the extent to which these processes took place and the level of innovation in the business are presented in Table 2, below.

Table 2: The correlation between the extent to which cultural processes took place and the level of innovation in the business

	Product Innovation	Process Innovation	Marketing Innovation	Organizational Innovation	M	SD
Culture processes	0.48**	0.37**	0.29**	0.36**	2.35	0.74

* $p < 0.01$ ** $p < 0.001$

Table 2 shows high positive correlations between cultural processes and the level of innovation in all types of innovation. The highest correlations were found with product innovation.

Business characteristics and the level of innovation

The correlations between the business characteristics and the level of innovation are presented in Table 3, below.

Table 3: The correlations between the business characteristics and the level of innovation in the business

Businesses Characteristics	Product Innovation	Process Innovation	Marketing Innovation	Organizational Innovation
Business Size	0.20*	0.15	0.04	0.23*
Business Age	0.04 -	0.05	0.09 -	0.10 -
Engineers	0.36**	0.15	0.19*	0.28**
Export sales	0.36**	0.09	0.21*	0.19*
Subcontractors	0.21* -	0.08	0.21* -	-0.06

* $p < 0.01$ ** $p < 0.001$

Table 3 shows high positive correlations between the number of employees with engineering or scientific backgrounds, the level of export sales, and the level of product innovation. In addition, positive but relatively low correlations were found between the business size and the level of organizational innovation. Low negative correlations were found between subcontractor sales and the level of product and marketing innovation.

Characteristics of the business managers and levels of innovation

The examination of the correlations between the manager's experience, number of businesses he had managed, and levels of innovation revealed that except low negative correlation between the manager's experience and the level of organizational innovation

($r = -.22, p < .01$), no significant correlations were found (see Appendix A1).

The differences in levels of innovation as a function of the manager being the business's owner were examined by means of one-way MANOVA analysis, which showed a significant effect of the manager being the owner:

$F(5,196)=7.33, p<.001, \text{wilks' } \eta^2=0.16$.

In the analysis by types of innovation, being a manager-owner was found to have a significant effect on all types of innovation, except of process innovation, where the average score of a manager who is not the owner is higher than that of a manager-owner (see Appendix A2).

5.3 Regression analyses

The contribution of cultural processes to levels of innovation in the business was examined using hierarchical regression analyses in three steps. The variables that were significantly correlated in a Pearson's correlation test with at least one type of innovation were introduced into the regression.

The analysis was conducted using four separate regressions for each type of innovation separately, with identical identity and order of the variables.

The regression coefficients are presented in Table 4, below.

Table 4: The regression coefficients

Variable	Product β	Process β	Marketing β	Organization β
Step 1				
Manager's experience	-0.07	0.10	0.00	-0.17*
Manager- Owner	0.17*	0.00	0.30**	0.23**
Step 2				
Export sales	0.34**	0.10	0.14	0.14
Business size	0.20*	0.18*	0.01	0.24**
Prop. Of engineers	0.30**	0.21*	0.13	0.29**
Subcontractors	-0.19*	0.05	-0.18*	-0.04

Business age	0.03	0.13	-0.08	-0.06
Step 3				
Cultural processes	0.37**	0.42**	0.21*	0.25*
R2	0.34	0.20	0.18	0.24

* $p < 0.01$ ** $p < 0.001$

In the first step, the characteristics of the business manager were introduced into the regression. Being a manager-owner significantly contributed to the levels of marketing and organizational innovation such that in businesses where the manager is not the owner, the level of marketing and organizational innovation is higher.

The manager's experience was found to contribute significantly only to the organizational level of innovation such that the greater the experience, the lower the level of organizational innovation. These variables are used as control variables in the study.

In the second step, the business characteristics were introduced. Export sales were found to contribute significantly only to the level of product innovation such that the higher the rate of export sales, the higher the level of product innovation.

The size of the business and the number of employees with engineering or scientific backgrounds were found to contribute significantly to the level of innovation of all types, except for marketing innovation. The larger the business and the greater the number of employees with engineering or scientific backgrounds, the higher the levels of product, process and organizational innovation. These variables served as control variables in the study.

In the third step, the cultural processes were introduced into the regression. These processes significantly contributed to the levels of product and process innovation, but less to the levels of marketing and organizational innovation.

6. DISCUSSION

The current study empirically examined a theoretical model that presents the relationship between cultural processes and levels of business innovation.

In the examination of the relationship between cultural processes and level of innovation through Pearson's correlation, high positive correlations were found with all types of innovation. In the examination of the contribution of cultural processes to levels of innovation by means of regression analysis, it was found that they had a significant contribution mainly to the levels of product and process innovation.

These findings confirm the research hypothesis regarding the levels of product and process innovation such that the greater the extent of cultural processes in the business, the higher the levels of product and process innovation. These findings may be explained by the fact that innovations in product and process are based on the knowledge, personal experience, insights, and intuitions of employees at all levels of the business. The implementation of cultural processes assists in translating tacit knowledge into explicit and available knowledge for wide use in the business, thereby contributing to its innovation (Nonaka, 2007). On the other hand, in small businesses, marketing innovations such as setting up a website or changing means of distribution, and organizational innovations, including changes in responsibility and authority, may be made solely by the manager, without the participation of additional employees.

Dobni (2008), Nonaka (2007), Miron et al. (2004), and Tellis et al. (2009) support the findings of the current study, although these studies examined the contribution of cultural processes to innovation in large businesses only and did not relate to the various types of innovation.

7. CONCLUSION

The research findings confirmed the study hypothesis and demonstrated that the implementation of innovation cultural processes, such as encouraging employees to examine new ways of performing tasks, is crucial for promoting innovation in small businesses. Nonetheless, it is interesting to note that cultural processes affect differently according to the innovation type: product, process, marketing or organization. The impact is higher to the levels of product and process innovation and lower to marketing and organizational innovation.

The theoretical contribution of the research is expressed in its focus on small businesses in the industry and craft sector, in distinguishing between different types of innovation, and in expanding knowledge on cultural processes implemented in these group of businesses, which has rarely been the focus of studies on innovation. The use of face-to-face interviews as a research tool facilitated the attainment of knowledge that is generally less accessible. In addition, the study findings may be instrumental in assisting small businesses in implementing appropriate processes for promoting innovation.

8. LIMITATION OF THE STUDY AND FUTURE RESEARCH

The findings were based on data provided by the business managers. However, in accordance to ensure the study's validity, a structured questionnaire was filled out by the author during face-to-face meetings and verified by means of additional questions intended to clarify the answers.

Future research should expand the parameters to include small businesses in other sectors. This expansion will facilitate a broader understanding of all small businesses in the market.

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APPENDIX A1:

Correlations between the characteristics of the business managers and the level of innovation in the business

Managers Characteristics	Product Innovation		Process Innovation	Marketing Innovation		Organizational Innovation	
Manager Exp.	0.11	-	0.10	0.08	-	0.22*	-
Number of Bus.	0.14		0.01	0.11		0.09	

* $p < 0.01$ ** $p < 0.001$

APPENDIX A2:

Analysis by types of innovation, being a manager-owner

Innovation Type	Manager- Owner		Manager- Not Owner		F(1,200)	Eta2
	M	SD	M	SD		
Product	3.05	4.06	5.89	6.82	6.96*	0.03
Process	2.68	3.62	2.39	2.73	0.11	0.00
Marketing	1.51	2.22	4.11	3.32	20.38**	0.09
Organization	2.02	2.46	4.44	3.07	15.15**	0.07

* $p < 0.01$ ** $p < 0.001$

NON-STOCHASTIC PREDICTION SPAN AS A PREDICTING TOOL IN ECONOMIC TIME SERIES

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ABSTRACT

This paper describes an original method suitable for constructing a non-stochastic prediction span in seasonally adjusted economic time series. Such a technique is capable of providing a rather narrow interval that can be used for short-term predictions in the time series evolution. We first analyse the properties of the presented method, in particular with respect to variability in the values of the underlying time series. Using simulations, we then compare the prediction potential of the model depending on low/high variability. In the end, we illustrate our findings about the model properties on time series data taken from the national accounts of the Czech Republic.

Keywords: combinations of polynomial trend curves, non-stochastic prediction span, variability of seasonally adjusted time series, final consumption expenditure.

INTRODUCTION

Analysis of time series is currently a dynamically developing field, particularly in connection with large data sets and possibilities of stochastic modelling. This fact is caused by the growing need to use the results of statistical analysis in economic decision-making. The availability of input data and the growing lengths of the economic-index time series to be analysed bring about a challenge to look for novel approaches to analysing and predicting in time series, as well as making the predictions more accurate. All prognosis methods in time series stem from looking into the future on the basis of studying the past. Predictions in time series of any economic indices should always comply with demanding requirements on accuracy and reliability, on which the quality of the subsequent decision-making heavily depends.

The quality of predictions in economic time series depends, to a variable extent, not only on the particular prediction span technique utilised but primarily on the variability of the past values of the underlying time series. When extrapolating the observed evolution, we must always take into consideration the factual and formal properties of the series as well as the criterion of the predictions to be meaningful. A wide prediction span is virtually worthless for the user, despite the high

reliability of such predictions; on the other hand, a narrow interval of predicted values brings a higher risk of prediction errors. The method presented in this paper is aimed at finding an acceptable compromise between those two extremes.

VARIANTS OF PREDICTION SPANS

The methods of statistical prognostics are among the most widely used prediction models. They include extrapolation techniques for one- and multi-dimensional time series, as well as different modifications of regression analysis. The substance of the traditional extrapolation methods studies the time series of a selected phenomenon and transfers the established regularities from the past and present to the future. This principle (called *ceteris paribus*) can, more or less smoothly, be applied to phenomena that are stable in time. If, however, substantial qualitative changes have been taking place in the analysed time period (and similar changes are to be expected in the future), the use of the traditional extrapolation methods is disputable. The point is that in the present economic practice we encounter a number of unstable phenomena. In such instances, point-estimate predictions lose their usefulness and we have to make use of prediction methods based on prediction intervals and methods of regression analysis. Such predictions may take on the form of traditional stochastic confidence intervals (cf., e.g., Fox, 2012 or Holger and Schreiber, 2004) or non-stochastic prediction spans (cf., e.g., Rogoza, 2017 or Kozák et al., 1999).

First of all, we are going to briefly describe the traditional stochastic prediction span, followed by a non-stochastic "fin-shaped" prediction span (which is partly based on our work Hindls, Hronová and Marek, 2016). We will now further develop this technique by testing its ability to comply with the requirements for prediction quality depending on the variability (as measured by the variation coefficient) of a particular time series. Finally, we will make predictions in time series of aggregate indices from the national accounts of the Czech Republic, accompanied by the corresponding factual analysis of the related issues.

Traditional stochastic interval predictions

The traditional interval predictions are two-sided prediction intervals with pre-set confidence levels. They are based on point estimates created by extrapolation of the trend curve, around which the stochastic is constructed. Let us denote by y_t the time series value at time $t = 1, 2, \dots, n$ (where n is a positive integer).

Within this concept, a predictor π is created for the given prediction horizon $h > 0$ (where h is a positive integer as well) for the time moments between n and $(n + h)$, viewed as an estimate of the unknown variable y_{n+h} to be predicted, together with two more predictors $\underline{\pi}$ and $\overline{\pi}$ such that $\underline{\pi} < \pi < \overline{\pi}$; π is the

so-called mid-predictor (which is, in substance, a point estimate of the future evolution); π_l and π_u are the lower and upper predictors; and the (π_l, π_u) interval is the prediction span. A traditional two-sided symmetric confidence interval for the mid-predictor π is used, with the end predictors $[\pi - D(\otimes), \pi + D(\otimes)]$; here $D(\otimes)$ is a random variable such that, for a given value of Δ , with $0 < \otimes < 1$, probability inequalities $P[|\pi - y^{(m)}| \leq D(\otimes)] \geq 1 - \otimes$ and $P[|\pi - y^{(m)}| \leq D(\otimes)] \geq 1 - \otimes$ are true. By $y^{(m)}$ we have denoted the applied prognostic model for the variable to be predicted (cf. in more detail, e.g., Stulajter, 2002 or Woodward, Gray and Elliott, 2012).

In order to describe the process being monitored, we can use a two-parameter linear regression function with positive, non-decreasing monotonous values of the independent variable. The prediction problem is resolved in a traditional way: the mid-predictor is obtained by extrapolating the deterministic component from the past to the future, and the prediction span by utilisation of a traditional symmetric two-sided confidence interval (Granger and Newbold, 1986 or Wei, 1990).

We begin with the fact that the dependent variable can be described as

$$y_t = \alpha + \beta x_t + \varepsilon_t, \quad t = 1, 2, \dots, n, \quad (1)$$

where

$$x_t > 0, \quad t = 1, 2, \dots, n, \quad (2)$$

stands for the known decreasing values of the independent variable, β and α for unknown non-stochastic parameters, and ε_t for random perturbations characterized by

$$E(\varepsilon_t) = 0 \quad \text{for } t = 1, 2, \dots, n, \quad (3)$$

$$\begin{aligned} E(\varepsilon_t \varepsilon_s) &= \sigma^2 \quad \text{pro } t = s, & t, s &= 1, 2, \dots, \\ &= 0 \quad \text{for } t \neq s. \end{aligned} \quad (4)$$

The estimates a and b of the parameters β and α respectively are identified with the aid of the least squares method, i.e., using the formulas below:

$$a = y - bx, \quad (5)$$

$$b = \text{cov}(x, y) / \text{var } x = r (\text{var } y / \text{var } x)^{1/2}, \quad (6)$$

where r is the correlation coefficient between y and x .

Estimates of the random perturbations (residuals)

$$e_t = y_t - a - bx_t, \quad t = 1, 2, \dots, n, \quad (7)$$

have, with respect to Formulas (5) and (6), residual variance

$$\text{var } e = (1 - r^2) \text{var } y. \quad (8)$$

The usual coefficient of determination $R^2 = 1 - \text{var } e / \text{var } y$ is here reduced to $R^2 = r^2$ (9)

and an unbiased estimate for the variance of random perturbations σ^2 has the form

$$s^2 = n(n-2)^{-1} (1 - r^2) \text{var } y. \quad (10)$$

The prediction problem is solved on the basis of the fact that the independent variable's value,

$$x_{n+h} > 0 \text{ for } h = 1, 2, \dots, m, \quad m < n, \quad (11)$$

is known between points n and $(n+h)$. The mean predictor is then

$$\hat{I}(h) = a + bx_{n+h} \quad (12)$$

where a and b stand for the estimates (5) and (6). With respect to the unknown variable y_{n+h} to be predicted, the error amounts to

$$d(h) = \pi(h) \otimes y_{n+h} \quad (13)$$

If the *ceteris paribus* principle is valid for the variable to be predicted, i.e., if the $y_{n+h} = y^{(m)}$ prognostic model is considered in relation with the model specified by Formula (1), which describes the past with the following properties:

$$y^{(m)} = \alpha + \beta x_{n+h} + \varepsilon^{(m)}, \quad (14)$$

$$E(\varepsilon^{(m)}) = 0, \quad E[(\varepsilon^{(m)})^2] = \sigma^2, \quad (15)$$

$$E(\varepsilon^{(m)} \varepsilon_t) = 0, \quad t = 1, 2, \dots, n, \quad (16)$$

then the variable under consideration is *ex ante* unbiased,

$$B_m[\pi(h)] = E[d(h)] = 0, \quad (17)$$

and its *ex ante* quadratic risk equals

$$R_m[\pi(h)] = E\{[d(h)]^2\}, \text{ which in its turn equals}$$

$$R_m[\pi(h)] = \sigma^2 C_n(h) \quad (18)$$

while there is

$$C_n = \frac{(n+1)}{n} + \frac{(x_{n+h} - x)^2}{n \cdot \text{var } x}, \quad h = 1, 2, \dots, m. \quad (19)$$

The traditional span of predictions will be determined as follows: when the coefficient of reliability is given as

$$1 \otimes \Delta, \quad 0 < \Delta < 1, \quad (20)$$

the lower variant $\pi_L(h)$, and the upper one $\pi_U(h)$ are calculated:

$$\pi_L(h) = \pi(h) \otimes D(\Delta, h), \quad \pi_U(h) = \pi(h) + D(\Delta, h), \quad (21)$$

where

$$D(\Delta, h) = \mu(\Delta) \{s^2[C_n(h)]\}^{1/2} \quad (22)$$

stands for an admissible error value, and $\mu(\Delta)$ is a $(1 \otimes \Delta/2).100\%$ quantile for the Student t -distribution with $(n \otimes 2)$ degrees of freedom. The resulting construction admits the following interpretation: if all the hypotheses on the model are valid (especially, the assumption that the random perturbations have normal distributions and the variable to be predicted complies with its *ceteris paribus* prognostic

model), then the variable to be predicted will lie inside the interval $[\pi_l(h), \pi_u(h)]$ with the probability value equal to $(1 \otimes \Delta)$, and outside this interval with the complementary probability value of Δ .

"Fin-shaped" prediction intervals

The traditional solution of stochastic predictions (21) presented above can be extended to alternatives based on non-stochastic approaches (cf. Kozák and Hindls, 1997). We will consider two such alternatives here; both of them are related to two additional models of the dependent variable

$$y_t = \alpha_p + \beta_p(x_t)^p + \varepsilon_{p,t}, \quad 0 < p < 1, t = 1, 2, \dots, n, \quad (23p)$$

$$y_t = \alpha_{1+q} + \beta_{1+q}(x_t)^{1+q} + \varepsilon_{1+q,t}, \quad 0 < q < 1, t = 1, 2, \dots, n. \quad (23q)$$

Regarding their interpretation with respect to model (1), it is useful to require that all of these three models should have the same deterministic components both at the beginning of the prediction, $t = n$, and at the beginning of series, $t = 1$. With respect to Formulas (1), (23p), and (23q), it seems reasonable to require that the following boundary conditions should be met:

$$\alpha_p + \beta_p(x_i)^p = \alpha + \beta x_i, \quad 0 < p < 1, \quad i = 1, 2, \dots, n, \quad (24p)$$

$$\alpha_{1+q} + \beta_{1+q}(x_i)^{1+q} = \alpha + \beta x_i, \quad 0 < q < 1, \quad i = 1, 2, \dots, n. \quad (24q)$$

We have estimates (5) and (6) for α and β ; hence, denoting by a_p, a_{1+q}, b_p and b_{1+q} the estimates for $\alpha_p, \alpha_{1+q}, \beta_p$ and β_{1+q} (respectively), we can calculate them with the aid of the following Formulas

$$a_p + b_p(x_1)^p = K_1, \quad a_p + b_p(x_n)^p = K_n, \quad (25p)$$

$$a_{1+q} + b_{1+q}(x_1)^{1+q} = K_1, \quad a_{1+q} + b_{1+q}(x_n)^{1+q} = K_n \quad (25q)$$

where

$$K_1 = a + b x_1, \quad K_n = a + b x_n. \quad (26)$$

In other words, the equality

$$a_p = a + b [x_1(x_n)^p \otimes x_n(x_1)^p] / [(x_n)^p \otimes (x_1)^p] \quad (27p)$$

is valid and there is

$$b_p = b (x_n \otimes x_1) / [(x_n)^p \otimes (x_1)^p]. \quad (28p)$$

Analogically,

$$a_{1+q} = a + b [x_1(x_n)^{1+q} \otimes x_n(x_1)^{1+q}] / [(x_n)^{1+q} \otimes (x_1)^{1+q}] \quad (27q)$$

and there is

$$b_{1+q} = b (x_n \otimes x_1) / [(x_n)^{1+q} \otimes (x_1)^{1+q}]. \quad (28p)$$

Models (23p) and (23q) provide alternative predictions

$$\pi_p(h) = a_p + b_p(x_{n+h})^p, \quad 0 < p < 1, \quad (29p)$$

$$\pi_{1+q}(h) = a_{1+q} + b_{1+q}(x_{n+h})^{1+q}, \quad 0 < q < 1, \quad (29q)$$

and the goal is to compare those with the mean variant (12), related to the original model (1). It can be proven that they fulfil the following inequalities:

$$\pi_p(h) < \pi(h) < \pi_{1+q}(h) \text{ or } \pi_{1+q}(h) < \pi(h) < \pi_p(h); \quad (30)$$

hence the lower and upper predictions

$$\pi_p(h) \text{ at } 0 < p < 1, \text{ and } \pi_{1+q}(h) \text{ at } 0 < q < 1 \quad (31)$$

can, as related to the mean variant $\pi(h)$, be viewed as the limits of a non-traditional span of predictions, called a "fin-shaped" span. Of course, selection of the constants p and q is decisive for this construction.

QUALITY OF "FIN-SHAPED" PREDICTIONS DEPENDING ON THE VARIABILITY OF THE TIME SERIES DATA

The variability of the time series data (for purposes of the "fin-shaped" predictions, the time series must always be seasonally adjusted if the seasonal component is present) is a key factor for the size, and therefore the quality of the prediction span. That is why, prior to applying our approach to real data, we carry out comparative analysis on simulated data to study the effects of variability. To this end, we will utilise a standard generator of random numbers available online. Let us generate two different time series of types (1) and (2); each of them with random perturbations according to (3) and (4). They differ in their variability, i.e., the values of their variation coefficients. For the first series, the variation coefficient value of the generated series is $0.042 = 4.2\%$; for the second one, this value is about ten times higher, i.e., $0.459 = 45.9\%$. We have generated $n = 60$ observations in both instances. The visual outcome is shown in Figures 1 and 2 (y_t = generated data; Y_t = trend line values; Y_t^H = the fin's upper contour; Y_t^D = the fin's lower contour).

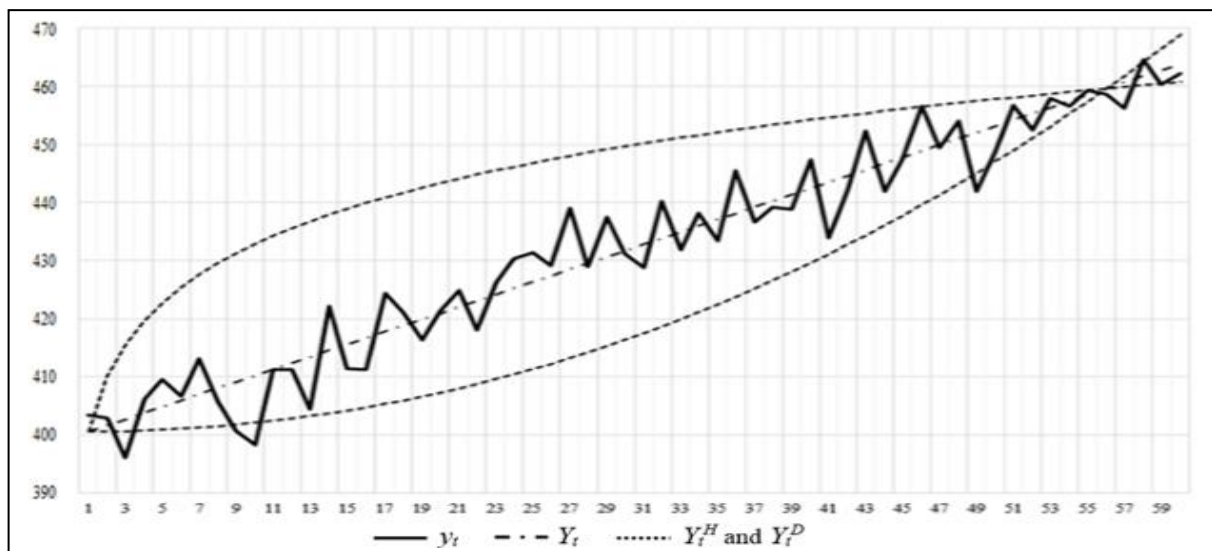


Figure 1. "Fin-shaped" model for a low-variability series

However, the "fin-shaped" model will only be made up based on 56 observations, and the remaining four will be set aside for future use. That is, we set up two "fin-shaped" models, each from its respective 56 observations, according to Equations (29) through (31) derived above. Finally, we construct the non-stochastic prediction spans with emphasis on our studying the ability of each such span to reflect the future evolution, or rather, the effects of variability on this ability. Figure 1 sums up our results for the time series with the value of the variation coefficient equal to 0.042.

In a fully analogous way, we have created the second "fin-shaped" model (again for 56 observations and setting aside four observations for later use). The only difference is the higher variability of the second series. Figure 2 sums up our results for the time series with the value of the variation coefficient equal to 0.459.

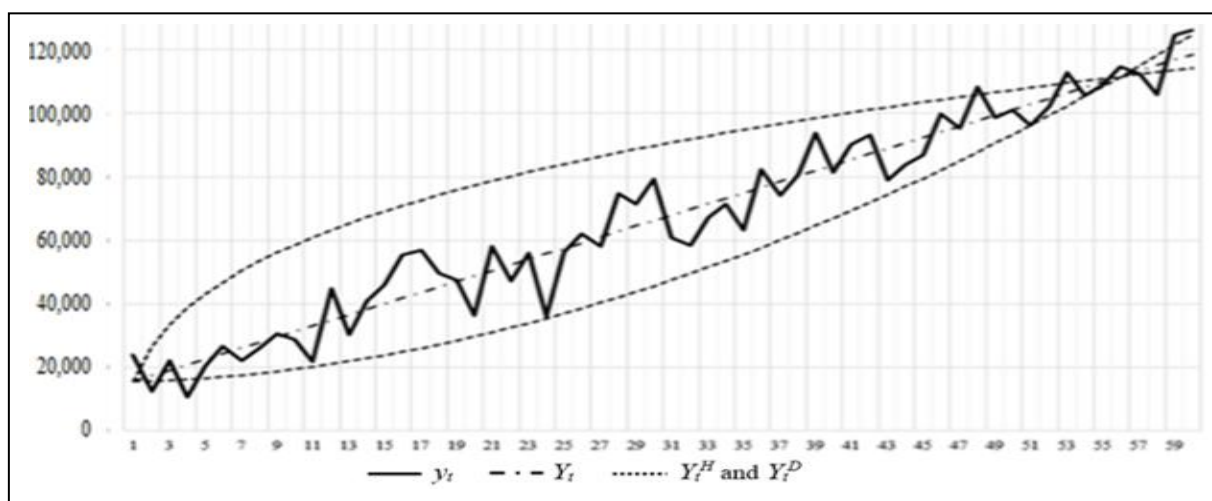


Figure 2. "Fin-shaped" model for a high-variability series

The visual comparison clearly indicates that the "prediction fin" made from the lower-variability data (Table 1 and Figure 1) is able to envelop the real data. The observation we originally set aside, i.e., y_t for $t = 57, \dots, 60$ fit inside of the prediction fin – cf. Figure 1. This prediction fin, however, does not envelop the "last year" data, i.e., y_t for $t = 57, \dots, 60$. In other words, the variability of the data to be interpolated is a primary, even if not sufficient, condition for reliable non-stochastic predictions.

We will now carry out a more detailed analysis of real time-series data, namely, the quarterly values of final consumption expenditure in the Czech Republic in the period 2003-2017 (source: Czech Statistical Office; www.czso.cz). Four values of this index from 2017 are again set aside, and we will try to use the "fin-shaped" model from the years 2003-2016 for the prediction of the four quarterly values of 2017 and compare those predictions with the actual 2017 data.

The final consumption expenditure value is one of the key macroeconomic indices in the area of the quarterly national accounts; it is based on the expenditure incurred by households, general government, and non-profit institutions serving households on the final consumption goods and services. The households' final consumption expenditure includes the value of the purchased goods and services, imputed rents, domestic services, etc. The general government's final consumption expenditure includes the individual and collective consumption expenditure values. The general government's final individual consumption expenditure corresponds to the social transfers in kind for households; the general government's final collective consumption expenditure includes all the remaining non-individualised expenditure (on administration, defence, security, science and research, etc.). The latter equals the general government's actual final consumption. For the non-profit institutions serving households, the final consumption expenditure always includes individualised expenditure; it corresponds to the social transfers in kind in favour of households.

This index also sensitively reflects the economic development in the monitored time period, which is a truly varied sample of different stages of the Czech economic cycles. Its beginning years, 2003-2007, were times of economic conjuncture, followed by the worldwide mortgage crisis, approximately from 2008 to 2010, which severely affected the Czech economy as well, including the final consumption expenditure values. After a short recovery in the years 2010 and 2011, a new wave of troubles with the economic growth came (not only in the Czech Republic), mainly caused by the fiscal problems of developed economies. In the remaining years of this period, a recovery again occurred, also prevailing in 2017. It is the evolution of the final consumption index in this year we will try to estimate and then compare with the actual values, already known now.

"FIN-SHAPED" PREDICTION INTERVAL FOR THE TIME SERIES OF THE FINAL CONSUMPTION EXPENDITURE

The procedure of constructing a non-stochastic prediction span will be now illustrated on a time series comprising the final consumption expenditure values. Our predictions will be based on a sequence of quarterly values of this index beginning in the 1st quarter of 2003 until the 4th quarter of 2016. It means $t = 1, 2, \dots, 56$, where $t = 1$ corresponds to the 1st quarter of 2003, and $t = 56$ to the 4th quarter of 2016. This time series (its original data are written below in Table 1) is characterised by a lower level of variability (namely, $v_x = 0.125 = 12.5\%$), even though, in the Czech economy, time series from the same time period occur whose variability levels are even lower. The value of the variation coefficient v_x we refer to can be viewed as a good precondition for applying the "fin-shaped" non-stochastic prediction span.

After deriving the "fin-shape-based" predictions for all four quarters in 2017, we compare those predicted values with the actual ones, which are now officially known. The data from the period 2003–2016 are given as current prices in million CZK, and they have been seasonally adjusted; such adjustment is a condition necessary for the application of the presented method.

t	yt	Yt	YtH	YtD	δ_D^H	t	yt	Yt	YtH	YtD	δ_D^H
1	497,194	525,218.3	525,218.3	525,218.3	0	29	687,958	663,613.3	736,437.8	562,970.3	173,467.5
2	504,456	530,161.0	557,900.6	525,229.2	32,671.5	30	689,849	668,556.0	739,370.1	567,012.0	172,358.1
3	508,229	535,103.7	579,227.4	525,258.6	53,968.8	31	691,700	673,498.6	742,225.3	571,332.4	170,892.8
4	517,874	540,046.4	595,442.7	525,315.8	70,126.9	32	694,380	678,441.3	745,007.6	575,940.8	169,066.9
5	521,663	544,989.0	608,678.8	525,410.3	83,268.6	33	695,177	683,384.0	747,721.3	580,846.3	166,875.0
6	530,887	549,931.7	619,940.7	525,551.1	94,389.6	34	697,822	688,326.7	750,369.9	586,058.3	164,311.6
7	538,538	554,874.4	629,788.2	525,747.7	104,040.4	35	697,157	693,269.3	752,957.0	591,586.1	161,370.9
8	546,007	559,817.1	638,567.3	526,009.3	112,558.0	36	700,521	698,212.0	755,485.5	597,439.0	158,046.5
9	549,014	564,759.7	646,508.1	526,345.3	120,162.8	37	701,459	703,154.7	757,958.5	603,626.2	154,332.3
10	553,721	569,702.4	653,771.6	526,764.8	127,006.8	38	699,107	708,097.4	760,378.6	610,157.1	150,221.5
11	562,679	574,645.1	660,475.4	527,277.1	133,198.3	39	700,292	713,040.1	762,748.3	617,041.0	145,707.3
12	570,920	579,587.8	666,708.1	527,891.7	138,816.4	40	700,640	717,982.7	765,069.8	624,287.0	140,782.8
13	578,512	584,530.5	672,538.2	528,617.7	143,920.5	41	709,811	722,925.4	767,345.4	631,904.6	135,440.7
14	587,489	589,473.1	678,019.9	529,464.4	148,555.4	42	711,169	727,868.1	769,576.9	639,903.0	129,674.0
15	596,723	594,415.8	683,196.7	530,441.2	152,755.5	43	714,034	732,810.8	771,766.4	648,291.5	123,475.0
16	599,214	599,358.5	688,104.4	531,557.3	156,547.2	44	715,699	737,753.4	773,915.5	657,079.3	116,836.2
17	616,189	604,301.2	692,772.6	532,822.0	159,950.6	45	719,530	742,696.1	776,025.9	666,275.8	109,750.1
18	621,369	609,243.8	697,226.0	534,244.6	162,981.4	46	726,475	747,638.8	778,099.1	675,890.3	102,208.9
19	632,156	614,186.5	701,485.6	535,834.3	165,651.3	47	732,332	752,581.5	780,136.6	685,932.0	94,204.6
20	645,417	619,129.2	705,569.6	537,600.6	167,969.0	48	744,206	757,524.1	782,139.6	696,410.2	85,729.4
21	654,291	624,071.9	709,493.3	539,552.6	169,940.7	49	745,664	762,466.8	784,109.6	707,334.2	76,775.3
22	669,872	629,014.5	713,270.2	541,699.6	171,570.6	50	755,611	767,409.5	786,047.6	718,713.4	67,334.2
23	679,194	633,957.2	716,912.2	544,051.0	172,861.3	51	763,358	772,352.2	787,954.9	730,556.9	57,398.0
24	682,426	638,899.9	720,429.7	546,616.0	173,813.7	52	771,261	777,294.9	789,832.5	742,874.1	46,958.3
25	682,953	643,842.6	723,831.8	549,403.9	174,427.9	53	775,270	782,237.5	791,681.4	755,674.3	36,007.1
26	685,051	648,785.3	727,126.7	552,423.9	174,702.8	54	784,113	787,180.2	793,502.6	768,966.8	24,535.8
27	682,614	653,727.9	730,321.8	555,685.5	174,636.2	55	794,765	792,122.9	795,297.0	782,760.7	12,536.3
28	685,898	658,670.6	733,423.5	559,197.9	174,225.6	56	804,039	797,065.6	797,065.6	797,065.6	0
						57	806,353	802,008.2	798,809.0	811,890.5	-13,081.5
						58	821,254	806,950.9	800,528.1	827,244.8	-26,716.7
						59	833,441	811,893.6	802,223.7	843,137.9	-40,914.2
						60	851,026	816,836.3	803,896.5	859,578.9	-55,682.4

Table 1. The "fin-shaped" model for the time series of the expenditure on final consumption (in million CZK, current prices)

Note: the following notation is used in this Table: y_t = generated data; Y_t = trend line values; Y_t^H = the fin's upper contour; Y_t^D = the fin's lower contour; and $\delta_D^H \rightsquigarrow Y_t^H \rightsquigarrow Y_t^D$.

Our primary task is now to establish the values of the p and q parameters. We have to choose them so that the curves interconnecting the Y_t^H values (corresponding to the p parameter), and Y_t^D values (corresponding to the q parameter), visually make up a "fin" into which a substantial part of the Y_t real values fall. We have chosen $p = 0.20$ and $q = 0.75$ to meet this requirement. Some other choices close to this one would be possible; we can verify this statement experimentally. The following parameter values of our model are calculated with the aid of Equations (5), (6), (27p), (27q), (28p), and (28q):

$a = 520,275.65$; $b = 4,942.677$; $a_p = 305,429.026$; $b_p = 219,789.301$; $a_{1+q} = 525,216.779$; and $b_{1+q} = 1.5488$.

The four "set-aside" values are shown in the bottom of Table 1, highlighted in grey, together with the prediction span values between the limits, which equal Y_t^H and Y_t^D . A chart showing the achieved results, including the fin shape, is given in Figure 3 below (y_t = generated data; Y_t = trend line values; Y_t^H = the fin's upper contour; Y_t^D = the fin's lower contour).

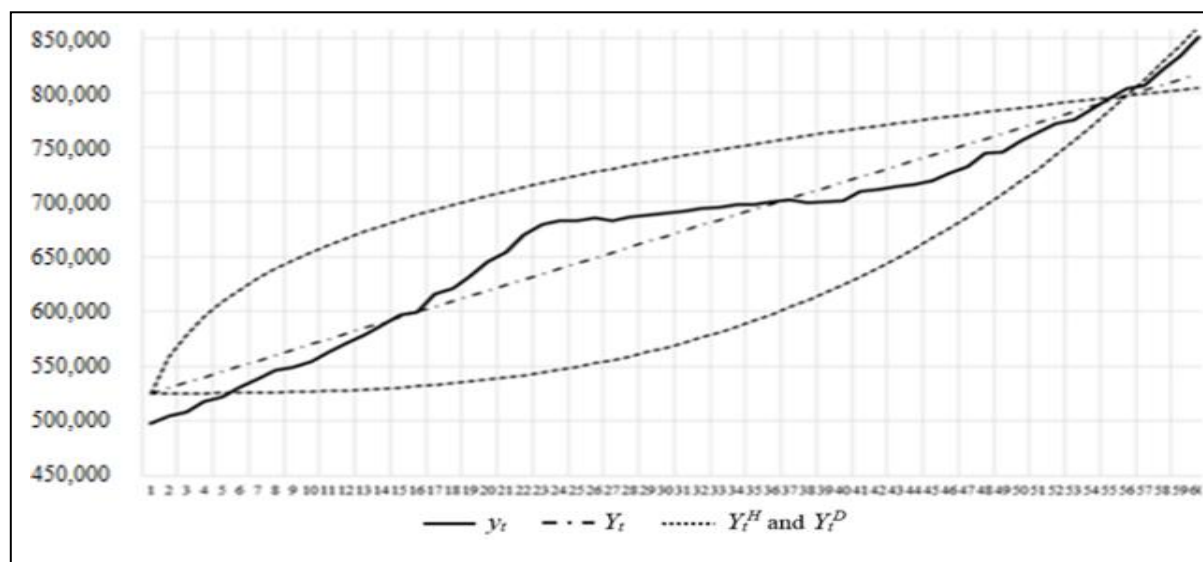


Figure 3. The chart of the "fin-shaped" model for the time series of the expenditure on final consumption

We can see in Figure 3 that we have been able to estimate quite exactly the evolution of the final consumption expenditure in the Czech Republic for the four calendar quarters in 2017 (that is, $t = 57, \dots, 60$). The real values are indicated by bold print in Table 1; the model values of the upper and lower limits of the fin are next to them in normal print.

The percentage error of our non-stochastic prediction span is not higher than about 0.5%, which can, by and large, be considered an exact prediction of the future evolution of the expenditure on final consumption in 2017. This result is all the more valuable concerning the fact that this time series covers times of rather turbulent developments in the (not only) Czech economy, in which recession and recovery periods quickly took turns. Despite those complications, the selected "fin-shaped" prediction

method has been capable of describing the process satisfactorily, and successfully predicting the evolution in all four quarters in 2017.

CONCLUSIONS

The goal of the present paper is to explain a novel method for constructing a non-stochastic prediction span in a time series. The original feature of this method is the way in which the past behaviour of the time series is projected to the future, namely, with the aid of a specific combination of two parameters, p and q , of the polynomial trend. This approach thus interconnects two aspects of the trend modelling: the concept of models with constant parameters on the one hand, and with variable ones on the other hand. This method is in particular suitable to be applied to processes that are not subject to sudden external interventions into their development, not seasonally affected (if they are, the seasonal effects have to be filtered away), and whose character is not overly explosive. An advantage is that we do not have to achieve stationarity, which is a usual prerequisite in many other time series models.

The above-mentioned results of the comparison analysis on simulated series with low/high variability level seem to indicate that the higher the variability in the past evolution, the wider the span between the limit trends (which are the "fin" contours, as all our Figures show), and vice versa. A similar phenomenon can be observed in the "fin-shaped" Project Documentation spans. A high level of variability (approximately, with the values of the variation coefficients above 0.25) provides virtually no certainty about the quality of our predictions. On the other hand, even a low value of the variation coefficient is not a reliable condition sufficient for a good quality of predictions (if it were, the *ceteris paribus* principle would be contradicted).

Certain open questions remain in the concept of the non-stochastic fin-shaped prediction. The choice of the p and q parameters plays a key role. We have two basic options here.

The first option is to choose these values so that a vast majority of the observed values fall between the limit polynomial trend curves. Let us once again recall that seasonal adjustment of the underlying series is a *sine qua non* prerequisite. If it is not met, the "fin" is unable to envelop the time series values (because the seasonal fluctuations quickly run away, that is, do not remain within the fin limits).

The other option for choosing the p and q parameter values is using a classical pseudo-prediction method. It means reducing the time series length by several values (in our example, we set aside four values), derive the fin-shape-based predictions, and finally compare the predicted values with those set aside before. From the viewpoint of computations, this approach requires that we investigate all possible combinations of the p and q parameters. There are infinitely many such combinations, which means that we have to reduce this task with the aid of the first-mentioned approach, based on the visualisation of the fin shape. After identifying the admissible combinations of the p and q parameter

values (and the number of such combinations will have been substantially reduced), we will calculate the values of the Theil coefficients and determine the best variant for the parameters based on those coefficient values.

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THE INFLUENCE OF CONSUMER ETHNOCENTRISM, CONSUMER ANIMOSITY AND DOMESTIC COUNTRY BIAS IN PRODUCT PREFERENCE

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ABSTRACT

This paper aims to study the influence of consumer ethnocentrism, consumer animosity and domestic country bias in product preference. Previous studies focused on a specific country and the connection between consumer ethnocentrism, consumer animosity and product perception bias in product preference is not yet clear. This study hopefully contributes to fill in these gaps. Since the use of a single country as a test was one of the main limitations of former studies, an experiment was performed in two different European countries, scoring high and low in ethnocentrism, Austria and Portugal respectively. Consumers over 18 years of age were randomly selected to participate in the study. The experience consisted of the tasting of a product with a domestic label and the same product with a foreign label from a country with a low level of animosity versus a country with a high level of animosity, followed by the completion of a questionnaire. Results have made it possible to compare the impact of different levels of ethnocentrism and animosity in consumer preference of domestic versus foreign products. Findings confirmed the country of origin effect with the influence of consumer ethnocentrism on product judgments for certain categories of products. The influence of animosity did not find significant results.

Keywords: Domestic Country Bias, Consumer Ethnocentrism, Consumer Animosity, Product Preference, Country of Origin.

INTRODUCTION

According to Feurer, Baumbach and Woodside (2016, p.352), consumer ethnocentrism can be seen as “[...] a form of protectionism at the consumer level”, that will threaten the entry of international firms in foreign markets, affecting trade and generating consumer perception bias. Specific events may also generate negative attitudes and adversely influence the purchase behaviour through consumer animosity, which refers to the effect of tensions between different countries.

Until now, studies focused on a specific country and it is not yet clear the connection between consumer ethnocentrism, consumer animosity and the subsequent development of negative product judgments, leading to a bias in consumption (Feurer et al., 2016). This paper tests the influences of consumer ethnocentrism, consumer animosity and domestic country bias in product preference in two different European countries, scoring high and low in ethnocentrism, Austria and Portugal respectively. Studying consumer preference of domestic versus foreign products in two different countries offers more possibilities to answer our main research question: what is the influence of consumer ethnocentrism, consumer animosity and domestic country bias in consumer preference of domestic versus foreign products?

The most relevant literature related to consumer ethnocentrism, consumer animosity and domestic country bias is analysed, followed by the empirical analysis of data for the two countries considered in the study. Conclusions about product preferences in two different contexts are drawn from the results obtained.

THEORETICAL BACKGROUND

According to Keller (1993), brand knowledge is “[...] a brand node in memory to which a variety of associations are linked” (Keller, 1993, p. 3). One of these associations can be the country of origin of a product, in what is known as Country of Origin effect (or COO effect) (Koschate-Fischer, Diamantopoulos and Oldenkotte, 2012). COO effect will effect product preference by generating “[...] a bias against foreign products and in favour of domestic ones” (Balabanis and Diamantopoulos, 2004, p. 80). This bias can be influenced by consumer ethnocentrism and consumer animosity.

Fernández-Ferrín, Bande-Villela, Klein and del-Rio Araújo (2015) relate product preferences to ethnocentrism through the social identity theory. According to which ethnocentric consumers will distinguish themselves from out-groups by choosing products from their own group (Fernández-Ferrín et al., 2015). Social influences, such as those of their friends or family, will enhance these choices, as predicted by the theory of planned behaviour (Fernández-Ferrín et al., 2015).

In terms of judgments, according to Fernández-Ferrín et al. (2015), consumers can choose national products to support their country's economy (rational judgment), or they can see it as their obligation (moral judgment).

Consumer animosity refers to consumers' perceptions of disagreements between the home country and a foreign country (Riefler and Diamantopoulos, 2007) and it is based on feelings of anger (Fernández-Ferrín et. al., 2015). Most animosities stem either from economic or war-based reasons. However, animosities can also be related with, for example, religion or mentality (Riefler and Diamantopoulos, 2007).

Shoham, Davidow, Klein and Ruvio (2006) use the cognitive dissonance theory to explain the relationship of consumers' animosity with their purchase behaviour and product judgement. According to this theory, people may have a negative attitude towards a country, but positive towards some aspects of its culture, like food or clothing. However, this dissonance may diminish through negative campaigns and information on the products and services from the other country, thus affecting product judgment (Shoham et al., 2006).

The connection of animosity, ethnocentrism and the domestic country bias with product preference has been demonstrated by some authors. Morey (2016) and Balabanis and Diamantopoulos (2004) studied this phenomenon from the demand side. Balabanis and Diamantopoulos (2004) only established the connection between consumer ethnocentrism and a domestic country bias for domestic products of certain categories. Animosity is not mentioned in these two referred studies, which measure only one country. The studies however indicate that country bias varies according to product category and country. Hence, two main limitations in the literature can be referred: too much attention has not been paid to the roles of consumer ethnocentrism, consumer animosity and domestic country bias altogether in consumer behaviour; and the focus on one single country to obtain results limits the ability to generalise the studies (Balabanis and Diamantopoulos, 2004). Moreover, according to Urbonavicius, Dikcius, Gineikienė and Degutis (2010), the relationship between consumer ethnocentrism and animosity remains yet unclear and deserves to be further studied.

The impact of ethnocentrism, consumer animosity and the existence of a domestic country bias on product preferences are not consensual. For example, De Nisco, Mainolfi, Marino and Napolitano (2015) suggest that economic animosity effects product receptivity, thus product preference. Fernandez-Ferrín et.al (2016) refer that consumer ethnocentrism has a bigger influence on product judgment than consumer animosity. For Morey (2016) and Siamagka and Balabanis (2015), ethnocentric consumers will always prefer domestic products, even if the quality is lower and the price is higher.

METHODOLOGY

This study compares an ethnocentric country, Austria, with another low scoring country in ethnocentrism, Portugal. The ethnocentrism of Austria can be seen in the supermarkets, for example, where the grocery receipts of the supermarket chain MPREIS offer information on the amount of money spent on regional products. Moreover, in the 2016 Austrian Parliamentary elections, the right wing party FPÖ obtained 35 percent of the votes (Aisch and Rousseau, 2016). This contrasts with 0.5 percent of the votes in 2015 obtained by the Portuguese right wing party, PNR (RTP Notícias, 2015), indicating a lower level of ethnocentrism.

This paper not only studied the relationships between these two countries, but also the relationship between each one and their main economic partner. Spain is the main partner of Portugal, contributing with about 32.9% of the total Portuguese imports in 2015 (CIA, 2016). In the case of Austria, 41,5% of the imports in 2015 came from Germany (CIA, 2016). However, animosity can also exist between these partner countries. Portugal and Spain, for instance, share a “sibling rivalry” from the time of the Discoveries, during which these two countries fought to forge their empire (Berdichevsky, 2012). Austria and Germany also have differences, mostly mentality and culture-related, such as the Austrians’ perception of Germans’ rigidity and lack of humour and the differences between the German spoken in Austria and the official version of the language. Historically, the defeat of Nazi Germany during World War II and the discovery of the German atrocities were a breaking point in the relationship between these two countries (The Local, 2014).

Research design and data collection

An experiment was performed in Austria and Portugal. Consumers over 18 years of age were randomly selected to participate in the study, in events in these two countries. The experience consisted of the tasting of a product with a domestic label and the same product with a foreign label from a country with a low level of animosity versus a country with a high level of animosity, followed by the completion of a questionnaire. The different questionnaires tested the relations between: Austria-Portugal and Portugal-Austria; Austria-Germany and Portugal-Spain. The control group for Portugal and Austria tested a non-specified country A against a non-specified country B. This was performed to verify if, by not specifying the countries of origin of two products, consumers would still perceive any differences.

Consumers were asked to taste two different jams and two different waters and to rate them in terms of quality. Although products were similar (from the same brand and from the same country), they were offered in similar recipients and marked differently as “domestic” and “foreign”.

Water was selected because it is a product consumed by everyone, which presents differences across countries: for example, if it is water from a river or from the mountains. The choice of jam is related with the fact that it is a product that is consumed at breakfast in both Austria and Portugal, and so most of the consumers are familiar with it. According to Marchi, Martinelli and Balboni (2014), the study of consumer ethnocentrism should always focus on products that have an available domestic alternative.

The objective of the questionnaire was to measure the impact of ethnocentrism, animosity and the domestic country bias in product preferences and choices.

The quality of the products tasted was evaluated through a Likert-Type scale of seven points. The quality of the water was evaluated based on the flavour, smell and transparency. The characteristics of

the jam appealed to consumer's senses, with questions related to the flavour, the colour, the texture, the sourness and the sweetness.

The last part of the questionnaire consisted of a Consumer Ethnocentric Tendencies Scale, or CETSCALE, from Shimp and Sharma (1987), of 12 elements, adapted to fit the purposes of the study. This scale is the one normally accepted to measure consumer ethnocentrism across different countries (Zeugner-Roth, Diamantopoulos and Montesinos, 2008).

Sample and Reliability Tests

The sample was heterogeneous in terms of ages and gender. The sample of Austria consisted of 138 observations and the Portuguese sample of 145 observations. To ensure the fit of every item and the reliability of the model as a whole, an Average Variance Extracted (AVE) analysis was performed and Composite Reliability (CR) was also measured using the software SMART PLS for a Confirmatory Factor Analysis. The results then ensured the fit of the scales used and it was possible to remove the elements with outer loadings above the recommended minimum value of 0.5.

RESULTS

The first analysis consisted in comparing the means of consumer evaluations of domestic versus foreign products to check for inconsistencies, since recipients with the labels of domestic and foreign contained exactly the same product (water/jam). The hypothesis tested was:

H1: The means of the evaluations of domestic and foreign products are different.

The differences in product judgment were analysed in pairs, using boxplot graphs. The results of the different characteristics of the products of a home country were analysed in comparison with those of the foreign country. The analysis was further complemented with a T-Student hypothesis test, since the samples presented a normal distribution and they were paired. The result of the T-test was significant, confirming H1. Hence, a country of origin effect exists for both countries.

In order to ascertain the influence of ethnocentrism in product preferences when comparing domestic and foreign products, two extra SMART PLS analyses were performed. These analyses allowed to test the following hypothesis:

H2: Ethnocentrism influences positively the overall quality perceptions of domestic products (water/jam).

The results indicate strong evidence for the confirmation of H2 in the case of water, at a p-value of .025. Loureiro and Kaufman (2017) also offer evidence that, for some product categories, the country

of origin influences perceived quality and, therefore, a bias is introduced in preferences towards domestic products. This study extends the findings of Loureiro and Kaufman (2017) by, simultaneously, applying the research to two different countries and accessing animosity contexts.

Since the test was performed in different countries, there is interest in knowing if consumer ethnocentrism will vary among countries. Therefore, a third hypothesis was formulated:

H3: Nationality (Portuguese or Austrian) impacts ethnocentrism.

A significant difference was found for Austrian and Portuguese people regarding the relationship between nationality and ethnocentrism, providing evidence for the rejection of H0. This extends the findings of Balabanis and Diamantopoulos (2004) that indicate that ethnocentrism studies needed to be replicated in different countries. Results show that Austrian consumers, whose country context is more favourable to the preference for domestic products, are more ethnocentric than Portuguese consumers.

Assuming animosity as the factor (independent variable), two types of trade contexts were built involving four pairs of countries. Animosity-free contexts (i.e. Portugal-Austria and Austria-Portugal) were compared with contexts with the presence of animosity (i.e. Austria-Germany and Portugal-Spain). Results indicated that ethnocentrism impacts product judgments for both animosity (Portugal – Spain and Austria-Germany) and animosity-free contexts (Austria-Portugal and vice-versa), in the case of the quality of the water. To check if the effects of these relationships were different between different country groups, that is animosity and animosity-free contexts, a two-sample z-test was run, in a sample of 89 questionnaires for Austrians and 99 for Portuguese people. Two distinct analyses were performed to understand the causes of differences in product perceptions and if these differences were related to consumer animosity. The z-value was .000140098, indicating that animosity did not show a significant influence over the impact of ethnocentrism on the general perceived quality of water. This means, in other words, that animosity does not seem to influence ethnocentrism.

More research is needed to better clarify the relationship between consumer animosity and consumer ethnocentrism. Since animosity is a phenomenon that occurs in different ways for different contexts (Urbonavicius et al., 2010), it is difficult to find a pattern to analyse its antecedents and establish a connection with particular cases.

CONCLUSIONS

This paper aims to test for the effects of consumer animosity, consumer ethnocentrism and domestic country bias in product preferences in two different country contexts. Several tests of hypotheses were performed to check the significance of relationships between variables. Results indicate major

differences in product evaluations between countries, suggesting the existence of country of origin effect. The role of consumer ethnocentrism on general quality perceptions was also confirmed in the case of water, revealing differences in product categories. The differences on this impact generated by consumer animosity were not significant, meaning that the impact of an animosity context on product preferences needs to be further studied.

One of the main limitations of this work was precisely the lack of a consistent scale to evaluate animosity. Animosity varies among different countries, unlike what happens with the CETSCALE that can be applied to many different countries (Urbonavicius et al., 2010).

The main conclusion of the study is that ethnocentrism seems to vary across countries. This result extends the findings of Balabanis and Diamantopoulos (2004) by testing ethnocentrism in two different countries.

This paper brings some contributions to the research in product perception bias and preference. It first provides an insight on the effects of the “country” label in consumers’ senses and preferences. The impact of domestic country bias and consumer ethnocentrism appears to vary across countries and product categories. Managers should measure the degree of consumer ethnocentrism when introducing their products in a new market. By evaluating the impacts of the constructs of animosity, consumer ethnocentrism and domestic country bias in product preferences, this paper offers important contributions for the field.

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PAIN MANAGEMENT TO IMPROVE THE PATIENTS' PERCEIVED QUALITY OF HEALTH CARE SERVICES: A THEORETICAL FRAMEWORK

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ABSTRACT

In Italy the pain management culture is not widely spread. In order to promote a significant socio-cultural shift, in 2010 a palliative care and pain therapy law was passed. It requires a compulsory registration of the pain and treatment relief in medical records.

The research objective is to monitor the quality of services, as perceived by patients, provided by the Pain Management structures at the University Hospital "Ospedali Riuniti" and at the A.S.L. Hospital in Foggia.

The questionnaire developed considers aspects of pain therapy service related to the booking service, waiting time and medical examination, kindness and openness to communication of staff, respect for privacy, relief from pain.

The methodology develops through several phases: definition of the investigation field, design of tools, method of administration, data processing, presentation of results, improvements on hospital performances.

The research has developed a theoretical framework as the empirical survey is underway. It will show a certain level of perceived satisfaction of the services by the users. Overall, the use of *customer satisfaction* tools in healthcare informs the supply and planning of services in relevant organizations. They have important managerial implications to improve health care performance.

Keywords: pain therapy, service management, questionnaire, customer satisfaction, network, hospital structures, outpatient structures, "pain free hospital-territory", SERQUAL model, law 38/2010

INTRODUCTION

The quality that a patient perceives and searches for within a Health Care Institute is the key element which determines the patients' level of satisfaction. An aspect which Health Care workers have recently drawn their attention to (Bowers et al., 1994, pp. 49-55; Bowers and Kiefe, 2002; Yasin et al., 2011; D'Souza and Sequeira, 2012; Kaldenberg and Becker, 2001; Mallarini, 2003; Dagger et al., 2007).

Patients are generally unable to judge the quality of the therapy and the medical treatment received from a strictly technical and professional point of view; but they are extremely able to evaluate the quality of interpersonal interaction experienced with the medical and paramedical staff (Mohammed et al., 2016, pp. 12-21; Yavas et al., 2016, pp. 49-69; Westbrook et al., 2014; Sofaer and Firminger, 2005; Saviano, 2012, pp. 78-101; Nigro et al., 2007, pp. 182-210; Ugolini, 2004).

Undoubtedly a correlation exists between the level of perceived quality and the final outcome of the service offered, or rather how the patients satisfaction can enhance the co-operation which in turn increases the probability of therapeutic success.

For a Health Care structure, the quality of service can be evaluated by the patient using his/her level of satisfaction as an indicator of the quality of service provided by the Health Care structure. In the course of the research that we will carried out, the above statement will show how an appropriate management of the patients' pain, can considerably improve the therapeutic outcome together with the co-operation and satisfaction of the patient.

The World Health Organization (WHO) considers pain treatment, in particular within hospitals as an indicator of the quality of the Health Care services provided. However, in a large number of cases the pain treatment of hospitalized patients is unsatisfactory in Italy (Costantini, 2011, pp. 6-9; Mediati, 2011, pp. 30-35). The reasons why pain and suffering in general are no longer openly treated can be due to the general opinion that pain is a component of the illness that has to carry out its natural course, to the fact that the attention on such subjective and personal symptoms centralize the patient attention rather than the doctor in the traditional doctor-patient relationship, to the many doctors' unbelief on creating a new equilibrium which allows the patients' experience of pain relief to play a vital role when providing Health Care assistance.

The "Towards a Pain Free Hospital" Project was introduced in 1992 in Canada. Other Pain Free Hospital Initiatives followed and were adopted in France, Switzerland, Belgium, Spain and in the United States of America (Ferrari S. et al., 2005, p.193).

In Italy, a document with guidelines related to the "Pain Free Hospital" Project was approved by the State - Regions Conference in 2001, which encouraged this culture combined with starting up the "Pain Free Hospital" Project throughout the National territory (www.salute.gov.it).

One of the salient points of the document was the establishment of appropriate "Hospital Surveillance Committees" and the introduction of Descriptor Scales to measure the intensity of pain. Apart from isolated cases, the document remained unapplied, despite the fact that pain is recognised as a symptom that is more likely to threaten the psychophysical equilibrium and the patient's quality of life.

In Italy there still is not an adequate diffusion of pain culture, so much that the opinion that pain is in

some way a fellow companion to the illness prevails. Pain Therapy, however has yet to become a common patrimony for the medical and paramedical class (Costantini, 2011, pp. 6-9).

On the 15th of March 2010, the Italian Parliament passed the following law N.38: "Dispositions to guarantee access to Palliative Care and Pain Therapy" as a way to encourage a substantial social-cultural change. This law is highly innovative because for the first time it protects and guarantees, as part of the essential levels of assistance, the access to palliative care and to pain therapy on behalf of the patient regardless of the type of illness or age he/she may have.

From the "Pain Free Hospital" Project to "Pain Free Hospital-Territory" Project, as indicated in the article 6 of Law 38/2010, the focus of pain care on the territory is shifted, leaving the pain management of complex cases to the Hospital and involving the figure of the general practitioner in the care process, and also introduces the concept of pain care network extended over a wide territory (www.salute.gov.it).

The law interests a much large number of patients affected by chronic pain (not by cancer), who are about 25-30% of the population (Ministero della Salute, 2010, p. XI).

Furthermore, the law concerns about 265,000 adults (140,000 males and 125,000 females) affected each year by cancer diseases. The incidence of tumors in the Italian population is increasing, for a real increase in some types of tumors, for the most accurate diagnosis, due to the increasing aging of the population. According to some estimates, the over 65s in Europe were 87 million in 2010 and will be 148 million in 2060 (Ministero della Salute, 2010, p. 60 e ss.).

This Law 38/2010 imposes on medical staff the compulsoriness to record on the patients' medical chart the intensity of pain, the analgesics administered, the degree of relief and the simplification of prescribing analgesics and in particular prescription of opiates. Therefore, the most innovative aspect of this law is introducing the obligation on doctors to monitor their patients pain levels on the patients' medical chart. An obligation that needs to be applied to all patients, regardless of their pathology and should be carried out taking note of personal observations, method of care provided and outcome of treatment.

Seven years after the entry into force of the law, however, almost 65% of patients do not know that there is a law that guarantees access to therapy to alleviate suffering and that hospitals are obliged to measure the level and write down everything on the patient's medical chart. Almost one in two Italians does not know the pain medicines. Two out of three general practitioners have not prescribed a visit to a specialist pain center (Fondazione Gigi Ghirotti, 2017).

Therefore, the paper aims to monitor the quality of the services provided as perceived by patients, exactly provided by the A.O. University Hospital "Ospedali Riuniti" in Foggia, that provides more specialized services of pain medicine, and provided by the A.S.L Hospital in the same Foggia

province, that provides services that interpret the needs of the inhabitants of the territory, both to monitor the quality and the appropriateness of the services provided according to the needs of the patient by comparing the different structures (A.O. and A.S.L. Hospitals) of pain management in a network and collaboration logic as required by law.

OBJECTIVES

The research intends to support the transfer of the managerial culture within the Health Care ambit in order to build a bridge between two worlds which are too often in conflict; that is between the clinical and managerial world.

The person in charge of managing hospital and outpatient structures of pain medicine at the A.O. Hospital and A.S.L. Hospital of Foggia has an extremely challenging role which is that of creating appropriate organizational conditions so that the hospital and outpatient structures are organised in a way which focuses entirely on the patient, and at the same time creates a positive environment where the entire personnel is motivated and willing to co-operate. For this role, the managerial responsibility can only be entrusted to a doctor; a person that can maintain a clinical contact with his/her patients and at the same time obtain a technical *leadership* acknowledgement from his/her colleagues, which derives from ability and practical experience (Bowers and Kiefe, 2002; Weiner et al., 1997; Adinolfi and Borgonovi, 2018).

Therefore, the research has the objective to monitor the quality of services provided by the hospital and outpatient structures at the A.O. and A.S.L. of Foggia as perceived by the patients. It's a survey extended to the province of Foggia as it will result from the sample of patients that will be interviewed.

The *customer satisfaction* surveys can represent the starting point to a broader approach to *Service Management* within the Health Care ambit. This research aims firstly to work out the notion that "one must put him/herself in the patient's shoes". Therefore, it seemed useful and appropriate, without claiming to be exhaustive or complete, to come to define the features of a managerial model for hospital and outpatient structures that helps to implement the quality of service, starting from the patient and his/her point of view.

One needs therefore to listen to what the patient has to say in a systematic way (Ugolini, 2004), placing the patient within a model that looks specifically at the quality of the Health Care services, which considers the peculiarity of the productive processes, the active role of the patient, the co-operation between the people that work within the organization. All this with the belief that the patient can be capable of generating an innovative Health Care service, on the same level as technology and clinical practice.

This way, one can be successful, by referring to consolidated models that focus on the quality of service, and that is of the *confirmation/disconfirmation* of the expectations (Parasuraman et al., 1988), breaking away from the typical self-referential logic of the Health Care professions. Parasuraman et al.'s (1988) SERVQUAL model and its improved version are still widely used all over the world for measuring service quality in various sectors including health care (Shemwell et al., 1998; Choi et al., 2005; D'Souza and Sequeira, 2012; Padma et al., 2009; Taner and Antony, 2006; Mostafa, 2005; Al-Borie and Damanhour, 2013).

The *customer satisfaction* surveys should help the doctor-manager, responsible for pain management structure, to assimilate the patient's standpoint, to implement the correct measures of service and to ensure that the areas of excellent service are more fully appreciated. Finally, the doctor-manager will be able to explain the reasons for an unsatisfactory service.

According to the new regulation, the law 38/2010, which focuses on the "quality" of pain therapy service, has become all of a sudden a point of institutional reference which must be followed in clinical practice; and a survey on *customer satisfaction* can contribute and enhance the importance of this law. A *customer satisfaction* survey focuses on understanding the degree of patient satisfaction related to the Health Care service provided. These measures are finalised to keep on improving the service offered (D'Souza and Sequeira, 2012; Otani et al., 2010).

Such surveys allow the assessment of the users' perception, which should exceed or at least equal expectations, as regards relational aspects (health care workers' kindness, attention, availability to communicate), humanization aspects (respect for privacy and visiting hours), aspects of physical accessibility (booking procedures, methods of access), aspects of time-related accessibility (waiting time when making a booking for a medical appointment and when the medical appointment actually takes place), comfort aspects (suitability and cleanliness of the Health Care environment) and pain relief (Sofaer and Firminger, 2005, pp. 513-559; Saviano, 2012, pp. 78-101; Yavas et al., 2016, pp. 49-69; Westbrook et al., 2014; Rothman et al., 2008; Mohammed et al., 2016, pp. 12-21; Studnek et al., 2013).

A questionnaire was created to carry out the *customer satisfaction* survey. The questionnaire varied from questions of a general nature to more specific and detailed questions, but in any case, all aspects need to return to the patients' logic and point of view. However, in order to measure *customer satisfaction*, one needs to use a questionnaire that includes all those aspects falling within the patient's criteria of evaluation and choice.

From a managerial perspective, it is important to listen, or better still to question the patient in order to know the variables he/she considers a priority. By doing so, service expectations can be outlined in function to the different variables which are considered to be a priority: not all the variables will have the same importance in determining the overall opinion of a patient's satisfaction. The knowledge of

such variables will allow to improve Health Care performance. It allows to intervene on those aspects of service which the patient believes to be a priority, and at the same time spreading amongst the hospital personnel the knowledge of these variables which the patient considers to be important. All this corresponds to a belief that what the “customer” wants must be known.

METHODOLOGY

For the *on desk* analysis, the research of theoretical models and managerial tools useful to the Heads of the Hospital and Outpatient Units will be carried out within the theoretical framework represented by *service management* studies.

Service Management is a rather new area of business disciplines, that however represents a series of concepts and “tools of the trade” of which Health Care literature has experimented its applicability. The tools on the whole are linked to a consolidated model on the quality of service, that is of the *confirmation/disconfirmation* of the expectations, according to which the consumer perceives an adequate level of service; at least adequate compared to his/her expectations (Parasuraman et al., 1988).

The *on field* analysis however will be carried out using a questionnaire which will be allowed to carry out the *customer satisfaction* survey. In particular, the survey methodology was divided into several phases: definition of the survey area; selection and design of tools (questionnaire); method of administration; data processing; presentation of results; actions on business processes.

When defining the survey area, some patients will be questioned at random (a sample statistically representative of the entire number of patients within the pain care unit per year) who are turned to the pain care units of the A.O. Hospital and A.S.L. Hospital in Foggia. Patients on their first visit with therapy treatment yet to be imposed will be excluded.

The method of administering and gathering data will take place by conducting a face to face interview. The data will be collected directly by the interviewer. Face to face interviews are often used because they are considered as the most effective and reliable method where the identity of the interviewee is known and at the same time you have a low percentage of refusals although many other methods are preferred in healthcare (Delvecchio, 2002, pp. 30-31).

In the next months, the patients will be given in an anonymous way, a questionnaire in a multiple choice format relating to the various aspects of the pain therapy service. The questionnaire gathers the socio-demographic characteristics of the patient; the booking procedures and accessibility to the Pain Care Structure; the type of pain presented at the time of entering the structure and the previous method of treatment; the type of service provided by the Structure; the overall level of the patients' satisfaction of the pain therapy service; the specific satisfaction felt for each aspect of the service

provided; possible patient criticisms and suggestions on how to improve the service.

More specifically, the questions within the questionnaire consider the aspects of the pain therapy service related to the booking procedure; waiting time when making a booking for a medical appointment and when the medical appointment actually takes place; kindness, attention, availability to communicate with the health care workers, respect for privacy; and pain relief (Saviano, 2012, pp. 78-101; Yavas et al., 2016, pp. 49-69; Westbrook et al., 2014, pp. 97-114; Mohammed et al., 2016, pp. 12-21; Studnek et al., 2013; Sofaer and Firminger, 2005).

In order to interpret the data related to the satisfaction perceived, not having been asked the question on how much each aspect of the service is considered important (or the expectation questions about each aspect) within the global service, this was done to facilitate the administration of the questionnaire, we will proceed the search by looking at the existence of a correlation between the results gathered in the general question on satisfaction "Overall how much do you consider yourself satisfied with the pain service?" and the single results of the other questions on satisfaction, in particular, on every aspect of the service provided. This means to ask oneself how much the satisfaction of every aspect of the service can be important and have repercussions on the satisfaction of the service as a whole.

This analysis is finalized to look into the intensity of the existing connection between two quantitative phenomena. The linear correlation coefficient takes on values that are always included in the interval between -1 and +1. If the value of the correlation coefficient tends get closer to a zero, the connection between the two phenomena is quite weak and if this equals zero the connection between the two phenomena is non-existent. If the value of the correlation coefficient tends to move towards a +1, this means that a positive correlation exists. That is, as the satisfaction increases for each single item; so does the opinion on the overall satisfaction of the service. This means that this item is not only considered positively but it is also important when analysing the overall opinion of the service in terms of satisfaction. However, if the value of the correlation coefficient tends to move towards a -1, this means that a negative correlation exists. That is, as the satisfaction for each single item increases, the opinion on the overall satisfaction of the service received decreases (Delvecchio, 2015, p. 343 e ss.). By using the values of the correlation coefficient it will be possible to draw up a map of positioning (Figure No.1), where the various aspects that constitute the service will place themselves in specific strategic areas functioning with the qualitative component that these aspects are capable of bringing.

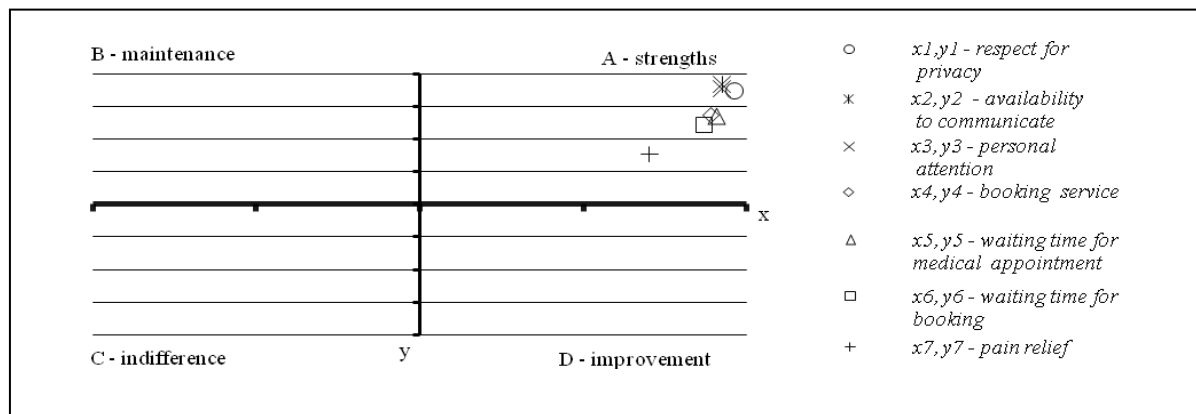


Figure 1. Positioning Map

In the graph the horizontal axis represents the level of importance attributed to the different aspects of the service, while the vertical axis represents the level of satisfaction declared by the interviewees for the same aspects. In this way, the map is divided into four quadrants that define the strategic areas of intervention, as described below.

A – Strengths: in this quadrant you will find the aspects of the service in which a high standard in terms of requisites considered to be of the utmost importance by the patient (value of the correlation coefficient +1); here you will find the aspects of the service that have a high level of importance and a high level of satisfaction.

B – Maintenance: this quadrant expresses the level of satisfaction which is already quite high, where possible improvements would not have significant repercussions on the overall opinion concerning service satisfaction (value of the correlation coefficient -1); here you will find the aspects of the service that have a low level of importance but a high level of satisfaction.

C – Indifference: in this quadrant you will find all the aspects of the service that do not have significant importance when looking at service satisfaction on the whole (value of the correlation coefficient -1); here you will find the aspects of the service that have a low level of importance and a low level of satisfaction.

D – Improvement: in this quadrant aspects of the service that need improvement are represented because these aspects have been considered unsatisfactory and considered determining to the overall opinion on the satisfaction of the service offered to the patient (value of the correlation coefficient +1); here you will find the aspects of the service that have a high level of importance but a low level of satisfaction.

Every item surveyed on will find its position in one of the four quadrants in the map and providing information on the perceived quality of the specific aspect of service provided. Therefore, in order to highlight the strengths and weaknesses of the service provided, a map of positioning will be created and elaborated on, where the various aspects that make up a service will fall into specific strategic areas on the basis of the qualitative component that these aspects are able to bring.

As one can see from the map (Figure No.1), the users judgments of both satisfaction and importance are very high regarding all the aspects of the pain therapy treatment received with a typical distribution “cloud” of a positive correlation, obviously this happens in the excellence structures of pain therapy. The elaboration of the answers of the questionnaire will allow to place on the map the pain therapy services of the two hospitals, commenting on the positioning itself.

By placing the various items in each quadrant will allow an immediate analysis of the areas to keep, improve and develop on adopting a program in which the essential elements of service offered to a citizen can be improved on.

CONCLUSION

The *customer satisfaction* survey, which will be carried out, will demonstrate a certain level of patient satisfaction for the services provided by the Structures of Pain Medicine as experienced at the A.O. Hospital and A.S.L Hospital of Foggia and the survey itself will make comparisons between different hospital and outpatient structures in the same province, placing them in a network logic from the patient’s point of view.

The questionnaire used for our research will be easily administered and the analysis of the results, described graphically in the positioning map, will allow a simple and an immediate interpretation, providing useful information for the hospital administration’s strategic planning relating to the requisites that the Structures of Pain Therapy must have as observed individually than together to build a network. Thus, the managerial model for the hospital and outpatient structures which help to implement the quality of service starting from the patients’ point of view, not only measures the perceived quality of the treatment supplied but can also represent a suitable support in the definition of the requisites that these types of structures should possess, all matters that assist the hospital administrators.

In particular, we believe that the investigation of *customer satisfaction* in health care service will lead to a more incisive contribution on the part of patients who, when providing a qualitative assessment of health care services, will indicate what is “really” important and “really” satisfying. In so doing, patients give information which is essential when planning levels of treatments to be provided. Treatments which an organizational structure should be able to guarantee.

Furthermore, the results of the *patient satisfaction* survey have significant managerial implications for the management of the Pain Care Structures in Hospital as they can supply strategic guidelines for administrators in order to improve health care performance.

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HOW ITALIAN AGRIFOOD PRODUCTS COMMUNICATE THEIR AUTHENTICITY? THE BRAND-LAND LINK INVESTIGATED ON THE WEB

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ABSTRACT

Company websites plays an important role in communicating information, but it is still unknown their potential for stirring emotions, i.e. creating involvement and, if possible, a stable relationship with the consumer.

This paper seeks to analyse the experiential dimension of websites that are exemplary of best practices in the Italian context and best represent the brand-land relationship of agrofood products with high-level of cognitive value, trying to understand as the success of certain regions in becoming famous "brands" thanks in part to the value of their products (e.g. Champagne, Gorgonzola, Montalcino, etc.)

The research was conducted by designing and testing an ad hoc model (called SOber) and by means of the focus group technique, which made it possible to identify and assess the essential variables for promoting and publicising the brand-land relationship via the Web.

Keywords: Web 2.0, agrifood products, brand-land relationship, company's website, experiential website, experiential evaluation model

1. PREMISE

Authentic agro-food products play an important role in food-and-wine heritage, particularly in Italy. Indeed, they have an *identity* – which in strategic terms can be called "unique" – arising from various factors, tangible and otherwise (Maizza & Iazzi, 2011; Scorrano *et al.*, 2013; Maizza *et al.*, 2013), such as traditions, habits, customs, history and culture, as well as climate, landscape and production methods that have become consolidated over time.

Although authentic agro-food products are enjoying consistent and growing sales, they still account for a only a small part of spending on food as a whole, which is why there may be interesting potential for growth that requires forms of promotion based on precise marketing measures. These measures must seek to enable authentic products to fulfil their potential, making them recognisable

and raising their profile, thereby creating value for the companies that make them and for their regions of origin (Ribeiro & Santos, 2008). Indeed, as Keller points out (1998, 1993; Keller *et al.*, 2005), the concepts of *brand recognition* and *brand recall* are at the heart of the broader concept of *brand image*.

The cognitive values possessed by *origin-based products* (otherwise known as *brand-land products*, whose characteristics will be explained in greater detail in paragraph 3.1) mean that they are “information intensive” (Watson *et al.*, 1999), and are thus likely to benefit from the implementation of so-called *experiential marketing* strategies (Schmitt, 1999; Pine & Gilmore, 1999).

For these products, the role of the experiential dimension appears to be particularly significant because it enables the consumer to remember the region, its history and its culture. The product thus becomes a cognitive element that can transfer experiences (actual or imagined) to different moments and places. Seen from this perspective, the Web (Cleff & Thomas, 2017) represents a particularly useful means of channelling the experiential value of the *brand-land* association. This can take place however only if the elements (texts, images, sounds, etc.) are properly harmonised and coordinated.

Aligned to the above-mentioned reasons, the scope of the paper is to improve the online communication of the agrofood products by means their link with the own region of origin in order to recall experiential aspects and emphasise the brand-land connection. In other words, assuming that the implementation of marketing communication strategies based on “experience-providing” websites (Ferraresi & Schmitt, 2006) can enable the *local dimension* to enter the *global context*, through the study of the experiential dimension (*Customer Experience Management*, Schmitt, 2003) of the websites of brand-land products and an adequate focus on those perceived as more specific/authentic (Pine & Gilmore, 2009) by the consumer, the research tries to define the *drivers of online experiential communication* for the authentic agrofood products. This could enable for these products also, to create a virtuous circle between virtual and real worlds in which brand notoriety is consolidated and becomes self-sustaining, enabling the region itself (the *land*) to become a *brand*.

2. THE THEORETICAL FRAMEWORK

The geographical, cultural, historic and social components of authentic products mean that they are categorised as “hedonistic” (Holbrook, 1980; Hirschman & Holbrook, 1982; Chaudhuri & Holbrook, 2001). Indeed, they tend to occupy – in the dynamics of consumption – a space that is not definable as the mere satisfaction of a need. They are also – and above all – characterised by the full involvement of the consumer, which transcends the product and has complementary effects, linked to the sensations and emotions targeted by experiential marketing. The customers thus become the protagonists of their own experience of consumption, expressed in a curiosity to learn about and visit the places of production, to participate in “memorable” events and to enjoy unique and unrepeatable experiences

(Pencarelli & Forlani, 2006; Pine & Gilmore, 1999; Schmitt, 1999).

For this to happen, consumers must fully perceive the value of such products: in addition to the concept of *authenticity* there must also be that of *brand fame/notoriety* which, as we know, requires a suitable process of communication. The latter can be achieved by means of interactive and experiential approaches, both online (e.g. the so-called Web 2.0 formula) and offline, in accordance with the *integrated marketing communication* approach (Schultz *et al.*, 1993; Kitchen *et al.*, 2004; Duncan & Mulhern, 2004).

In Italy, an example of the safeguard and promotion of authentic products, as well as of their deep connection to their places of origin, is the producers' associations (Consorti di Tutela). In the best cases, they have shown that organised cooperation can transform the traditional activities of a region into an *identity*, which it can then raise into a fully-fledged *brand*.

The formulation of the theoretical hypotheses was based on two theoretical macro-areas in marketing studies (summarised in the following paragraphs), which appear to be closely linked, especially in reference to the products we are dealing with here. As we have said, these products are strongly rooted in their context of origin and possess a combination of values and emotions that can be usefully employed in experiential marketing strategies.

2.1 The Brand-Land concept

Authentic products, in French known as *produits du terroir* (Arfini *et al.*, 2010), are products characterised by a close and indissoluble link with a specific *terroir*, i.e. with the geographical and human identity of their region of origin. The meaning of the word *terroir* developed in the mid 19th century in France, although it should be regarded as a concept in continuous evolution (Vaudour, 2005; Barham, 2003; Dedeire, 1995; Dubois, 1994).

A more extensive analysis of the aspects of authentic agro-food products leads to the identification of four dimensions: *geographical*, regarding the pedoclimatic conditions that affect the product, making it unique (from the raw materials to the production process); *historical*, understood as the sum of the knowledge and know-how accumulating over time within the place of reference, i.e. the human factor; *cultural*, resulting from the values, beliefs, knowledge and traditions that are consolidated in the region and determine the principles that guide the inhabitants' way of life and thought; *social*, as an effect of the relational and behavioural rules that characterise given contexts.

On all of this depends the deep-seated link (here called the *brand-land* relationship) that such products have with their respective place of production in the wider sense, since the features that make them authentic are not replicable or "exportable" beyond that specific context (Mastroberardino, 2004; Maizza *et al.*, 2003). The identity of a region (the so-called *place-identity*; see Siano, 2001 and Siano *et al.*, 2008), from which the specific character of the products arises, is the direct consequence of its

traditional economic activities (the so-called *place-personality*), which determine the *place-image* (Peterson & Jolibert, 1995; Roth & Romeo, 1992; Usunier & Cestre, 2007; Maizza & Iazzi, 2011).

When the land (region, *terroir*), the “primary economic resource” in which “the experience of production” takes shape (Rullani, 2000) and guarantor of the product’s *authenticity* (Gilmore & Pine, 2009), becomes widely known, it becomes synonymous with these features. From this perspective, the brand-land combination is linked to the concept of the common good, i.e. an intangible asset that encapsulates the values and behavioural models of a socio-geographical area in which the cultural traditions expressed by the products discussed here are consolidated. This asset generates and transfers value (including economic value) to a plurality of subjects, who, in order to preserve it and increase it, must respect its underlying essential conditions and behavioural rules. In Italy, as we have said, these criteria appear to be met particularly well by the producers’ associations of the authentic products, which, in the best cases (such as those analysed here), have managed to safeguard and promote a combination of elements and traditions, even in the global context. In this way *land* is *brand* and thus, via consumer loyalty it is able to create *equity* for a plurality of subjects.

3.2 The experiential content of authentic products

The considerations set out above resonate with the principles of *experiential marketing* (Pine and Gilmore, 1999; Schmitt, 1999), since they enable a change of perspective: it is no longer a question of promoting just the company product / service, but the experience that can enhance its value, which then becomes “unique and unrepeatable” for the consumer (Pine & Gilmore, 1999; Schmitt, 1999). This approach is the fruit of two main trends (Codeluppi, 2001; Knutson *et al.*, 2006; Schmitt 1999; Pine & Gilmore, 1999): the behaviour of the modern (or post-modern) consumer, who, thanks to today’s technology, has become more informed and interactive (as much with other consumers as with companies), and therefore more demanding and anxious to assert his/her personality via “emotive” purchasing choices. The increasingly companies’ marketing strategies that are based not on the use value of their products/services, but on the company’s values, in which the brand itself becomes an archetype of an experience, i.e. a dynamo of many experiences, via atmospheres that arouse emotions, sensations and the holistic involvement of the consumer.

By adopting this approach, which falls within the scope of so-called *Customer Experience Management* (Ferraresi & Schmitt, 2006), companies therefore create and implement a strategy for managing the consumer’s experience with the product, in which contexts of use and consumption are analysed, designed and proposed.

Even when it is transmitted via advertising – the experiential dimension enables: a) the consumer to perceive the product (and the region of origin) differently, attributing a higher value to it on the basis

of his/her personal experience, making it thus not comparable with other brands; b) the company to apply a premium price by virtue of its differentiated competitive positioning.

Starting from these assumptions, and consistent with the experiential grid proposed by Schmitt (1999; Ferraresi & Schmitt, 2006)¹, it was considered useful to focus the analysis on so-called *Experience Providers (ExPro)*² – in this specific case, *company websites* – and on the types of experience to be enjoyed by the consumer, the so-called *Strategic Experiential Modules (SEM)*. In order to observe the value attributed to brand-land products by web users, the SEMs were arranged as follows (Table 1).

Table 1. The Strategic Experiential Modules (SEM) for the brand-land products

Sense	Referring to the sensory dimension, the minimum level for creating involvement via the five senses. <i>Brand-Land perspective: The sensory dimension (sight, hearing, touch, taste and smell), through which the perception of the product is stimulated, recalling its region of origin in particular.</i>
Feel	Pertaining to the consumer's affective involvement with the brand, in the phases of both purchase and consumption, with the aim of establishing a relationship with the consumer and increasing his/her loyalty. <i>Brand-Land perspective: The affective dimension, i.e. sentiments, which arouses positive emotions towards the brand, for example suggesting occasions for use of the products.</i>
Think	Regarding the cognitive/creative and problem-solving dimensions that prompt the individual to engage in a rational activity. <i>Brand-Land perspective: The cognitive/creative and problem-solving dimensions, by which companies seek to draw the consumers' attention via initiatives that involve the sphere of intellectual activities linked to the product and/or region of origin, as well as the connection through them.</i>
Act	Offering the consumer physical experiences, as well as new ways of acting and interacting with other consumers in a framework of change. <i>Brand-Land perspective: The dimension of acting (and interacting), in which the company promotes initiatives (which also involve the region of origin) with the aim of inducing consumers to modify their lifestyles, involving them in "physical" experiences that cause them to reflect.</i>
Relate	It aims to involve the consumer in initiatives that enable him/her to meet others who are enthusiastic about the company brand (birth of a <i>brand community</i>). <i>Brand-Land perspective: The dimension of personal and inter-personal relations, based on the creation of experiences that enable consumers to get in touch with their ideal selves or with a group of people that share the same interest in the product in question and its region of origin.</i>

3. RESEARCH HYPOTHESIS AND METHODOLOGY

This paper is based on the following logical construct: *in order to become well-known, authentic agro-food products must express their link with their region of origin by means of forms of online communication that recall experiential aspects and emphasise the brand-land connection.*

This study therefore aims to analyse the experiential dimension (*Customer Experience Management*, Schmitt, 2003) of the websites of brand-land products, to see how they can be perceived as specific/authentic (Pine & Gilmore, 2009) by the consumer. It is assumed that the implementation of

¹ The experiential grid proposed by Schmitt (Schmitt, 1999ab; Ferraresi & Schmitt, 2006) makes it possible to strategically plan the experience to be enjoyed by the consumer on the basis of two dimensions: i) *Strategic Experiential Modules (SEM)* which can be broken down into five different aspects (in which the degree of involvement grows sequentially from one module to the next; see Table 1); ii) the *Experience Providers (ExPro)*, which determine/provide/stimulate the various experiences; they activate the experiential modules (SEMs) and are associated with activities connected with the following elements.

² The *ExPros* are: *communication, visual/verbal identity, product presence, co-branding, Websites and media, people.*

marketing communication strategies based on “experience-providing” websites (Ferraresi & Schmitt, 2006) can enable the *local dimension* to enter the *global context*, making it possible to create a virtuous circle between virtual and real worlds in which brand notoriety is consolidated and becomes self-sustaining, enabling the region itself (the *land*) to become a *brand* (Iaia *et al.*, 2016, 2017).

The company website represents a means of communication between the consumer and the company, which must also be able to create consumer involvement (measurable by means of specific factors such as the duration of the visit, return visits, etc.). The recourse to an experiential logic in web communication can facilitate/emphasise the brand-land connection, increasing the brand notoriety (a pre-condition for competitive success) and the competitive capacity of authentic (brand-land) agro-food products. This logic also takes account of a) the factors that prompt the consumer to visit a website, b) the formation of their perceptions (Rodgers & Thorson, 2000; Rodgers *et al.*, 2007) and c) the potential significance of the *emotional dimension* for products *with a high cognitive content*.

In this perspective, an answer was sought to the following question:

What are the key elements for transmitting the experiential dimension and the brand-land connection of authentic agro-food products in online communication?

To answer this question, we analysed the communication strategies of certain brands considered to reflect best practices in advertising based on the link between the product and its region of origin. These cases of excellence were identified with reference to previous research that studied in detail the salient aspects of web communication. Specifically, this study looked at the Consorzi (producers' associations) responsible for (see also Maizza *et al.*, 2013, Scorrano, 2013; Fait *et al.*, 2013; Scorrano *et al.*, 2013, Fait & Trio, 2011a, 2011b):

- i. *wine sector*, Consorzio Vino Chianti Classico, Consorzio dell'Asti D.O.C.G., Consorzio del Vino Brunello di Montalcino (for further details see: www.chianticlassico.com, www.astidocg.it, www.consorziobrunellodimontalcino.it);
- ii. *cheese sector*, Consorzio per la Tutela del Formaggio Gorgonzola, Consorzio di Tutela del Formaggio Grana Padano, Consorzio del Formaggio Parmigiano Reggiano (for further details see: www.gorgonzola.com, www.granapadano.it, www.parmigianoreggiano.com);
- iii. *meat product sector*, Consorzio del Prosciutto di San Daniele, Consorzio del Prosciutto di Parma (for further details see: www.prosciuttosandaniele.it, www.prosciuttodiparma.com).

The model used to assess the experiential content (i.e. the overall importance of the experiential aspects) of the websites exemplifying the above-mentioned best practices is founded on *strategic experiential modules* (SEMs – *sense, feel, think, act and relate*) (Schmitt, 1999; Ferraresi & Schmitt, 2006), which were contextualised and categorised as elements for assessing the websites.

For this to succeed, a suitable method (dubbed *SOber*) was conceived and tested for determining and assessing a website's experiential dimension, applying it to the sector in consideration. The method is divided into the following steps:

- (1) Identification and selection of the key elements with which to assess a website's experiential dimension (*Selection*), on the basis of each *strategic experiential module* with reference to the organisation of the information (textual and visual content). To this end, recourse was made to n. 3 focus group of the "inspection" type (Mich, 2007), one for each sector, composed usually of 9-10 experts in communication and marketing in the sectors, as: n. 3 sommeliers; n. 3 oil tasters; n. 3 sociologists; n. 5 communication managers; n. 3 copywriters; n. 4 marketing researchers; n. 2 CEO; n. 4 business communication experts. Discussions were conducted in July 2015 at University of Salento, by a moderator and his assistant (who played a key role in data analysis) and generally lasted ninety minutes.
- (2) Observation of the behaviour of consumers, web marketing experts and people with knowledge of the agro-food sector (*Observation*), via n. 3 *user-based focus groups* (Mich, 2007), in order to analyse:
 - the use of content, via navigation in the website;
 - the perception of the experiential aspects, via comparative assessment of the key elements identified with the help of the experts cited in point 1;
 - the degree of involvement that follows from these elements.

This led to a final evaluation of the experiential dimension, which expressed the interviewees' summary verdict. The *user based focus groups*, conducted with the same modalities of the precedents, involved: n. 4 consumers, n. 4 web marketing experts, n. 3 food sector experts; n. 5 communication managers; n. 3 sommeliers; n. 2 oil tasters; n. 1 sociologist; n. 3 marketing researchers; n. 3 CEO. Each focus group was made by 9/10 people, lasted one hour and forty-five minutes circa, and they abled participants to fill an evaluation grid (*experiential degree*) in order to express their impressions and feelings about the examined website.

- (3) Processing of the opinions expressed by the interviewees (*Evaluation and Ranking*), useful for ranking the experiential content of the websites considered.

The *SOber* model, the fruit of detailed studies based on the theme of experiential marketing (Schmitt, 1999), highlighted the existence of certain more intensively perceived aspects, which were thus considered to be the *drivers of online experiential communication*.

This paper thus belongs to a field of enquiry that has yet to be extensively tackled in the marketing literature, despite universal recognition of the importance of the web in advertising and users' purchasing decisions. It makes particular reference to those types of product whose presence on the market is limited to a place-based niche.

4. WEB COMMUNICATION, EXPERIENTIAL CONTENTS AND THE BEST CASES OF THE BRAND-LAND COMBINATION: AN EMPIRICAL INVESTIGATION

RQ: What are the key elements for transmitting, in online communication, the experiential dimension and the brand-land connection of authentic agro-food products?

The following paragraph shows the main results of the investigation of the case studies considered here, conducted by means of the two kind of focus groups described above (inspection and user-based), for a total of six focus groups. So, the description below can be considered as a summary representation of the assessments, considerations and suggestions that emerged during the meetings. The interviewees' assessments on a five-point Likert scale (in which 1 is poor and 5 is excellent) will be discussed in the next paragraphs. This assessment is useful since it enables comparisons and thus comparative analysis of:

- (1) the various competitors;
- (2) the most strongly perceived SEMs;
- (3) the emotional communication expressed by the website and perceived by users (in this specific case, the space available in this paper did not allow for gap analysis).

4.1 The origin-based products: the "sense" SEM

The analysis conducted shows that *sense* is the "module" that is most intensely perceived by users – as argued by Pine & Gilmore (1999), "*the more sensory an experience, the more memorable it will be*". This is achieved above all by recourse to visual cues, but also to smells and flavours. Indeed, textual, visual and audio-visual content focusing on:

- the region of origin, the product and the link between the two are emphasised by means of the description and images of the *terroir* (*sight sense*), its history and its *comuni* (districts) of production (see *Chianti Classico*, *Brunello di Montalcino*: vines, hills, woods, fields in bloom, traditional rural buildings; cfr. Fig. 1); the structural and visual characteristics of the product and its production processes, highlighting its authenticity and uniqueness and educating consumers (*smell/taste senses*) as to how they can

- recognise it (see *Chianti Classico*, *Brunello di Montalcino*: vintage, bunch of grapes, colour of the product); explanatory images and captions that link the specifics of the product to the pedoclimatic and historical-cultural conditions of the product's places of origin (see *Prosciutto di Parma*: characteristics of the raw materials, climate and authentic techniques used in the region; colour and black-and-white images of the valleys of Parma through history showing the conservation of a natural and uncontaminated environment, in which traditions, innovated and modernised, are handed down from generation to generation);
- the sounds of the production process (*hearing sense*), especially regarding the transformation of the product therefore linked to both the region of origin (see *Chianti Classico*: sounds of nature, conversations of farmers busy harvesting the grapes) and the product (see *Chianti Classico*: bottle of wine being opened, serving the wine, clinking of bottles during the production process; images of the winery that evoke the silence and tranquillity of the locations; auditory analysis of the maturity of the cheeses of *Parmigiano Reggiano*); sounds of tradition (traditional feasts, special events, etc. – see *Chianti Classico*, *Parmigiano Reggiano*); sounds of tradition (traditional feasts, special events, etc. – see *Chianti Classico*, *Parmigiano Reggiano*); the silence of the places of production, with a strong appeal to the concept of time, the seasons, the naturalness of the product, i.e. *slow food* and a healthy and balanced lifestyle (see *Chianti Classico*, *Parmigiano Reggiano*, *Prosciutto di Parma*);
 - the main “tangible” components (*touch sense*) that distinguish the product and make it immediately recognisable are recalled for experts and ordinary consumers alike (see *Chianti Classico*, *Brunello di Montalcino*: consistency of the soil and bunches of grapes; *Prosciutto di Parma*: delicacy of the slice; *Parmigiano Reggiano*: master cheese-makers processing the raw material in order to transform it into the finished product in accordance with traditional rules);
 - the description of the product's aromas and fragrances (*smell/taste sense*), which are associated with the place of production understood in terms of its physical characteristics, i.e. the soil, climate, history and culture (see *Chianti Classico*: authenticity and uniqueness of the wine's bouquet – the floral fragrance of irises and violets, of spices and forest fruits; *Parmigiano Reggiano*, *Prosciutto di Parma*: processing and fire branding; olfactory analysis of the maturity of the product; appeal to the cool and natural state of the places where the product is matured). The sense of taste is invoked by reference to tasting alone or with other foods, often-available in the region (see *Chianti Classico*, *Brunello di Montalcino*, *Parmigiano Reggiano*, *Prosciutto di Parma*).

4.2 The origin-based products: the “feel” SEM

Although the smell and taste senses are hard to convey via the web they are communicated by videos which (for example) show the consumer the product's associations and the distinctive features of the region of origin in a wider sense, or teach the basic notions for correctly performing a sensory analysis of the product, both in an educational framework (SEM: *feel*).

In fact, the involvement of users is centred on:

- 1) suggestions as to when the product could be used, with reference to:
 - a) the food-and-wine heritage of regional cuisine (Tuscany for *Chianti Classico*, Emilia Romagna for *Parmigiano Reggiano* and *Prosciutto di Parma*, the North of Italy for *Grana Padano* and Friuli Venezia Giulia for *Prosciutto San Daniele*) and, more generally, Italian cuisine and the Mediterranean diet;
 - b) the Italian tradition of dining with the family (see *Parmigiano Reggiano*) or with friends (see *Chianti Classico*);
 - c) the product's versatility of use, depending on the consumer's needs, given its capacity to adapt to the tastes of all age groups and its nutritional properties (target clientele considered: children, women, the elderly and sports players; see *Parmigiano Reggiano*, *Grana Padano* and *Prosciutto di Parma*);
- 2) *online education* (textual and/or audio-visual), aimed at helping the public to learn the steps into which the sensory analysis of the product is divided, including the preparation of dishes that envisage the use of the products in question (see *Parmigiano Reggiano*, *Grana Padano*, *Prosciutto di Parma* and *Prosciutto San Daniele*);
- 3) cookery courses and tasting courses to be held at the *Academies* of the Consorzio (see *Parmigiano Reggiano* and *Chianti Classico*).

In this sense, all three case studies analysed effectively implement the above-mentioned stimuli, although the Chianti Classico website is held to be the most engaging (with a score of 4/5; Parmigiano Reggiano, 5/5; Prosciutto di Parma, 4/5).

4.3 The origin-based products: the “think and act” SEM

With reference to the last modules to be examined, i.e. *think* and *act* (which were considered together given the substantial similarity of the two modules in the present case), it is seen that thanks to the appeal to the product's health properties, naturalness and quality of the products and the Mediterranean diet, together with the promotion of a healthy lifestyle by means of events and the involvement of sports personalities, Parmigiano Reggiano again scores highly (5/5). In addition, the site provides the user with numerous angles from which to approach the “storytelling” of the product, which, together with the other SEMs cited above, creates engagement for the user.

However, each brand focus on the healthy and balanced lifestyle that every individual should enjoy (see *Parmigiano Reggiano*: “Never manufactured, always hand-made”, “The King of cheeses”; *Chianti Classico*: “the true heart of Chianti is the land”, “Not all wine made in Chianti is Chianti Classico”; *Prosciutto San Daniele*: “Naturale, Italiano, Unico”; *Prosciutto di Parma*: publication of the brochure entitled “diet and well-being” and advertising “100% natural”).

4.4 The origin-based products: the “relate” SEM

The *relate* sphere is made up by organisation of events, demonstrations and courses (for recreation, presentation and promotion) which bring together enthusiasts of the products being studied, with the intention of enhancing their loyalty by awareness-raising and acculturation to a healthy lifestyle and a balanced diet (see *Parmigiano Reggiano*: “*I am what I eat: dietary education project*” (organised by the *Consorzio*), involving 20,000 young people and 1,000 school teachers in Piedmont, Lombardy, Emilia-Romagna, Veneto, Tuscany and Rome; *Parmigiano Reggiano Academy* “*The taste of knowledge*”; *Chianti Classico*: *Chianti Classico Academy, in the Gallo Nero wine school*”).

5. CONCLUDING SUMMARY AND MANAGERIAL IMPLICATIONS

The study sought to verify the experiential dimension of the communication used by websites by means of a model of analysis created for the task (*SObER*), tested using the focus group technique (*inspection and user-based*).

Given the results of the test conducted, the application of the chosen methodology, created and verified in order to *understand and assess the experiential content of websites*, is argued to be replicable in contexts other than the one investigated here, since it makes it possible to first identify the basic elements of the experiential dimension and then assess them by means of user-based focus groups. Indeed, it was noted that in online advertising, experiential content represents a new frontier, whose opportunities (enhanced by the evolution of computer technology) appear to be numerous and fruitful for both marketing studies and managerial applications.

It is easy to see that the internet can play a fundamental role in the marketing of these products via the sharing of experiential content by i) the producing companies, on the “experience of production” (Rullani, 2006); ii) the users, on the experience gained in the physical place (whether this be the store or the production site). By adopting this approach in advertising it is thus possible to involve other potential consumers via online and offline word-of-mouth communication (Prendergast *et al.*, 2010; Solima, 2010; Riva, 2010), increasing the visibility of the products and their regions of origin in the international arena. This can have a positive impact on the behaviours and purchasing decisions of consumers and tourists alike (Lau & Ng, 2001).

To summarise, the study made it possible to verify that the emotional element can be communicated

and perceived (even unconsciously), thereby enabling products with a high cognitive and experiential content (as in the case of place-based products) to gain a high profile and thus greater competitiveness in the international context.

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PROFITABILITY DYNAMICS OF TOURISM COMPANIES DURING THE CRISIS PERIOD 2007-2015*

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ABSTRACT

The global financial crisis has affected all countries during the period 2007-2014. Tourist companies, especially in Italy, play a significant role in the economy of a country. The performance of tourism companies, and in particular hotels and travel agencies and tour operators, will be analysed in this paper, relative to the period of the crisis.

The aim of this paper is to analyze profitability dynamics of the aforementioned tourist companies, to check whether they have suffered the effects of the global crisis.

To this end, data from AIDA database relating to Italian companies in the sector were used. The profitability of these companies has been analyzed using the main profitability ratios, ROI and ROS ratios. An analysis of the trends and ANOVA of these ratios was carried out for the period 2007-2015. In this way, it has been verified whether the global crisis has affected profitability dynamics of hotels and travel agencies and tour operators in Italy.

There is a parallelism in the trends of the main operators' indices in the three Italian macro-regions. The best performance is in the South, in a less developed economic context.

The crisis has reduced the income indices in the first three years, even if the figure remains positive. Since 2012 there is a clear recovery, especially for hotels; intermediaries, on the other hand, suffer from competition from websites. However, the indices confirm the close relationship between travel agencies, tour operators and hotels. ROI mainly rewards first, while ROS intermediaries.

Keywords: Tourism, Crisis, Profitability, Performance, Ratio

INTRODUCTION

The economic crisis that has recently hit many capitalist nations has developed a rich literature with respect to its effects on tourism.

* The paper is the result of a collaborative work. However it is possible to attribute to Felicetta Iovino: research methodology, results and discussion. The other sections are of Guido Migliaccio.

There are numerous studies that have measured the fluctuations in the stock prices of the main operators (Zopiatis *et al.*, 2018; Angel *et al.*, 2018; Grechi *et al.*, 2017), the effects on the psychology of tourists (Batle and Robledo, 2018) and residents of the host cities (Garau-Vadell *et al.*, 2018), as well as the management of intermediaries (Blázquez-Resino *et al.*, 2018; Bremser *et al.*, 2017; Perles-Ribes *et al.*, 2016).

In relation to these studies and those subsequently cited, this paper highlights the situation in Italy with specific reference to tourist companies, hotels and travel agencies and tour operators. In particular, its objective is to analyze the profitability situation of Italian tourist companies, during and after the 2008 crisis, about various geographic areas and the two tourist markets, hotels and travel agencies and tour operators.

The hypotheses are that:

(H₁) the financial crisis did not significantly affect the profitability structure of tourist companies, by virtue of their resilience;

(H₂) there are differences between groups belonging to different markets or geographic areas;

(H₃) these differences are statistically significant.

To this end, we asked ourselves three basic questions:

RQ1: What is the actual situation and what has been the trend in the last decade in the various Italian geographic areas and business markets?

RQ2: Are there differences between the two markets or geographic areas?

RQ3: Are these differences significant?

For this aim, the profitability structure is evaluated using two ratios: the ROI (Return on investments) and ROS (Return on sales); the period considered is the eight years from 2007 to 2015; trend analysis and ANOVA has been used.

In the future, the research must be extended to other operators in the tourism sector and, furthermore, it will be necessary to investigate the main indices and asset margins to link them to the income surveyed here.

Our research approach is quantitative.

In the following sections, a review of literature on tourist companies is presented. Thereafter the methodology, results and implications, conclusions are discussed.

LITERATURE REVIEW

The theme of tourism is faced by a vast international bibliography. The sector, in fact, lends itself to multidisciplinary and interdisciplinary reflections. However, the economic aspects of the company enjoy significant, but certainly lower, attention, especially considering the balance sheet and balance sheet analysis that derive from quantitative empirical research. In fact, they need a laborious and articulated study of the quantitative results of the company and of statistical elaborations.

A first bibliographic reference, therefore, must address precisely these last aspects of a mathematical-quantitative type using, for example, the study of Ye *et al.* (2017) which offers useful reflections on the relationship between the core competition and the surplus value of listed tourism companies. Focusing on a series of research on the problem of the profitability of listed tourism companies, even if referring to the Chinese reality, this article is the closest to the object of our study.

An even more complex mathematical-statistical modeling applied to the tourism sector is presented by Yang *et al.* (2017) describing curvilinear effects of e-loyalty in China's online tourism industry. An empirical study was conducted in China. Structural equation modeling used to test the models, and pair-wise nested. Results show that the curvilinear model has greater explanatory power of loyalty than traditional linear models. This finding means that businesses should link online user-generated reviews to business performance in tourism. Finding incentives for users to become a part of the website.

The proposal by Wang and Fang (2010) is also worthy of a serious discriminant analysis and its application on the profitability of the whitening weight function easily. However, it presupposes specialized knowledge of statistical quantitative elaborations.

Econometric models that involve the profitability of tourism companies are also proposed in what will presumably be the tourist trip par excellence in the coming decades: that of sub-orbital space tourism. Already in 2006, in fact, Charania *et al.*, using the data then available, of the market demand and the forecasts on the most probable future vehicle suppliers, tried to examine the economic profitability of the companies that wanted to present themselves in this particular and particular segment of the tourist market.

As part of this brief review of econometric modeling applied to tourism, it is also necessary to mention the work of Boz *et al.* (2015) about the systematic-risk determinants of the European accommodation and food services industry in the period 2003-2011.

Many other international scientific productions refer, instead, exclusively to accommodation companies (hotels) or to tourism intermediaries such as travel agencies or tour operators, sometimes

avoiding complex quantitative elaborations, without however diminishing the intuitions useful for scientific progress and for the concrete improvement of company management. There is no comparative analysis between the two operators who, although offering obviously different services, are closely related because the former rely mainly on the action of the latter.

With prevalent attention to hotels, the study by Alvarez-Ferrer *et al.* (2018) who tried to focus on the key factors for success of these companies. It is a mainly bibliographic study, referring exclusively to the Spanish reality, which nevertheless manages to identify some factors that guarantee hotels durability and therefore also the ability to respond to crisis situations. Among these factors, the location certainly emerges, in Spain as elsewhere. A focus on this theme is proposed by Segarra-Oña *et al.* (2012). The identification of the successful elements of the Spanish tourism realities favor the entry of new companies as specified by Andreu *et al.* (2010). The Spanish study also refers to the quantitative study by Camisón *et al.* (2016) which focuses on the return on capital in tourism businesses. It has the merit of highlighting the role of family businesses spread in that country, as well as in Italy where this paper is located. Financial analyzes logically connected to the income ones of the Spanish reality are also in Such Devesa *et al.* (2009).

With reference to Tunisia, on the other hand, a similar analysis was carried out by Ben Aissa and Goaid in 2016, using data derived from 27 hotel companies. The study considered two fundamental information: Data Envelopment Analysis (DEA) and the Return On Assets (ROA).

The recent study by Xu (2017), which critically analyzes the operating and profitability efficiencies of the US listed hotel companies in the recent five years through a data envelopment analysis (DEA) approach, focuses on hotels. Findings suggest that they are highly efficient and profitable. His results are quite close to the income analysis for indices that is proposed in this work.

The profitability of hotels is influenced by several factors. Among these it seems important degree of commercial agglomeration in the tourist districts. Using the multiple linear regression method to a sample of Spanish companies located in a particular region, Marco-Lajara *et al.* (2014) have shown that hotels located in destinations with a higher degree of agglomeration are less profitable, probably due to the greater rivalry that exists between neighboring competitors. This conclusion, although in need of adequate interpretations with respect to the methodology and the data processed, is useful not only for the management of individual companies but above all because it adequately directs tourism development policies and related sectors.

The profitability of hotels also depends, of course, on the price policies adopted by each company, considering that different prices can be used in the different channels of communication with potential customers. This is what emerges from the study by Kim *et al.* (2014) entirely focused on the effect of

price dispersion on hotel performance. Dispersion and hotel performance. It is suggested that customization and bundling strategies for offline channels enhance the overall profitability of hotels.

Furthermore, the profitability of hotels as well as any other tourist company, and also related to the qualities of governance as emerged from the empirical research of Al-Najjar (2014) even referred exclusively to companies in the Middle Eastern countries.

Another factor that directly influences the profit of all tourism companies, and therefore hotels, is customer satisfaction. Among others, see the contribution of Sun and Kim (2013).

The food and drink industry is linked to tourism and, of course, to all accommodation facilities. The analysis of the profitability of this specific segment, in Croatia, is proposed by Pervan and Mlikota (2013). In this regard, the interconnections between hotels and restaurants are well described in Skalpe (2003) which focuses mainly on risk profiles.

The most recent developments relating to tourism focus attention on the sustainability of the sector and its operators. The theme makes use of ethical and social considerations and considers the respect of the environment and people as a priority, as well as the protection of local cultures and traditions. Profitability, therefore, should be subordinated to sustainability. The bibliography is extended. We limit ourselves to mentioning Mihalič *et al* (2012), Lim *et al.* (2012), Pérez-Calderón *et al.* (2011), Inoue and Lee (2011), Beriatos and Papageorgiou (2009), Kasim *et al.* (2008).

It is more difficult to find adequate bibliographic sources on the profitability of other tourism intermediaries, also considering that the diffusion of the Internet network favors the customers who autonomously plan their travels, avoiding the traditional intermediaries. However, even new intermediation web operators need adequate strategies to maintain at least sufficient profitability. The topic is discussed in the recent study by Zhu and Li (2017) which proposes a theoretical reference for the development of online tourism enterprises. Carrying out interesting reflections on a company that manages a site for tourist trips, he concludes that the evaluation model of the Internet is a business model that is made up of value groups, product and service, resource allocation and profit patterns. On the basis of this, the internal and external resources of the enterprise are integrated, ultimately the development strategy of the online tourism profit. Considering the trends in progress, this attempt to interpret the management dynamics of online intermediaries is certainly to be considered as a reference for areas to be investigated in more detail, even considering that the number of information obtainable online can generate confusion, as outlined in article by Ranjbarian *et al.* (2016). This study is aimed at investigating the risk of confusion for the firms or service organizations in the tourism industry. Of these possible confusions must therefore take into account all the times that e-commerce is also applied to the tourism sector. Liu *et al.* (2009) has already dealt with its diffusion in two large

countries such as the USA and China. In 2009, directing companies by enriching their websites' contents, establishing individual brands and enhancing cooperation with traditional tourism companies. These strategic lines are still valid.

In conclusion it is necessary to mention the work of Feng *et al.* (2014) about strategic restructuring for turnaround. It has the advantage of analytically describing the entire restructuring process as a response to a corporate crisis in the hotel industry. An indirect correlation with this paper that wants to focus on the economic performance of some tourism companies in the years of the global crisis. It also highlights the need for integrations between companies in the same tourism sector, as also feared by Pansiri (2008).

RESEARCH METHODOLOGY

Data collection and sample characteristics

To our objectives, secondary data on AIDA database has been used. To analyse the profitability situation, two ratios, ROI (return on investments) and ROS (return on sales) have been chosen. The nine years during and after the crisis, i.e. 2007-2015 had been considered. The sample was made up of hotels and tour operators and travel agencies, that is 6465 tourist companies. This is the maximum number of companies available. Then we verified the number of such companies for which data are available for the indexes considered by us in the 9 years under investigation. The sample consists of 794 companies. Successively, different groups have been identified using two discriminating factors, the geographic area and the business market. About the first one three clusters have been identified: north, centre and south according to conventional classification of Italian regions. The geographic distribution of the sample was the next: 51,55% in the North group, 30,67 % in the Centre and 17,78 % in the South ones. To identify the belonging market a specific section was assigned to each tourist firms according to the statistical classification of economic activities in Italy (*NACE rev.2 codes*), and they were grouped in two groups: hotel market and tour operator and travel agency market (Iovino and Migliaccio, 2018).

According to the second discriminating factor, the sample consisted of 87,15% hotel firms and 12,85% tour operator and travel agency firms.

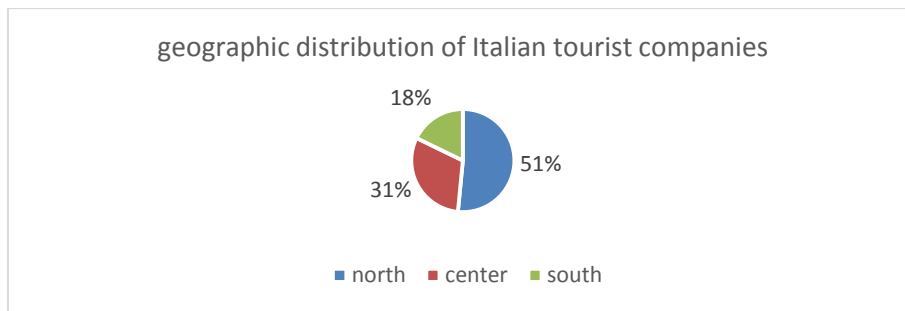


Fig. 1 – Source: our elaboration - geographic distribution of Italian tourist companies

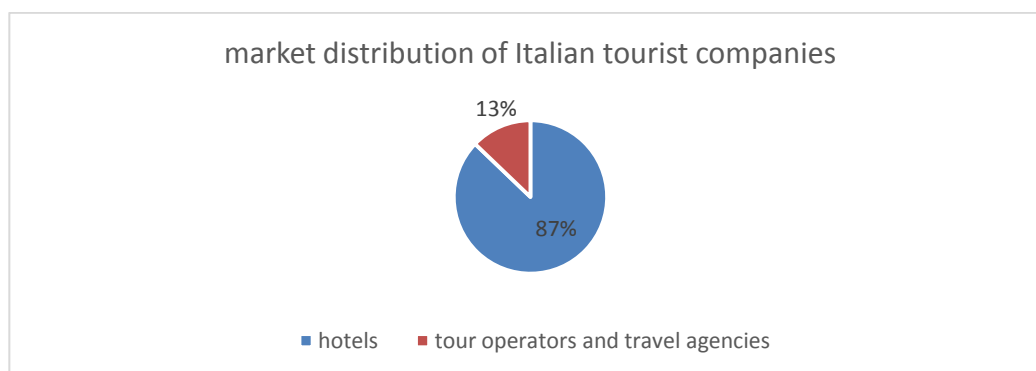


Fig. 2 – Source: our elaboration - market distribution of Italian tourist companies

Method

First of all we analysed data's trend in the period 2007/2015 for each ratio and group. Then by the analysis of variance (ANOVA) we assessed the differences of means between groups and the response variable means at the different factor levels.

The null hypothesis states that all population means (factor level means) are equal while the alternative hypothesis states that at least one is different. In our case, the independent variables were the geographic localization and the business market while the dependent variables were the ratios. We chose ANOVA one-way type, because two variables were analysed e separately.

RESULTS AND DISCUSSION

Trend analysis

ROI (return on investments) indicates the profitability of the typical management of the company and therefore of the core business. It is given by the ratio between operating income and operating net invested capital. Its value should therefore be as high as possible. Within the sample the nine year's ratio between 1.84 and 6.65, if we consider the geographic localization as discriminating factor, and between 1.87 and 9.25, if we consider the belonging market. Figures 3 and 4 show that the mean over the nine years decrease considerably between 2007 and 2009 with the beginning of the crisis and then

go back to starting from 2012. The trend of ROI in the nine years is the same in all geographical areas. With respect to geographical areas, ROI has the lowest values in 2009 and 2012 respectively 1.84 and 1.9, while the highest values are in 2007 before the crisis, with 6.65 and in 2015 after the crisis with a value of 4.9. Market-based ROI trend also looks similar in the nine years. ROI values of travel agents and tour operators are higher than those of hotels, due to several factors including the greater weight of property, plant and equipment. Also according to the market of belonging, the values of ROI fell considerably between 2007 and 2009, the years of the crisis, going from a maximum of 9.25 to a minimum of 1.87. Subsequently, the values of ROI increase with the exit from the crisis, although recording a new decrease in 2012.

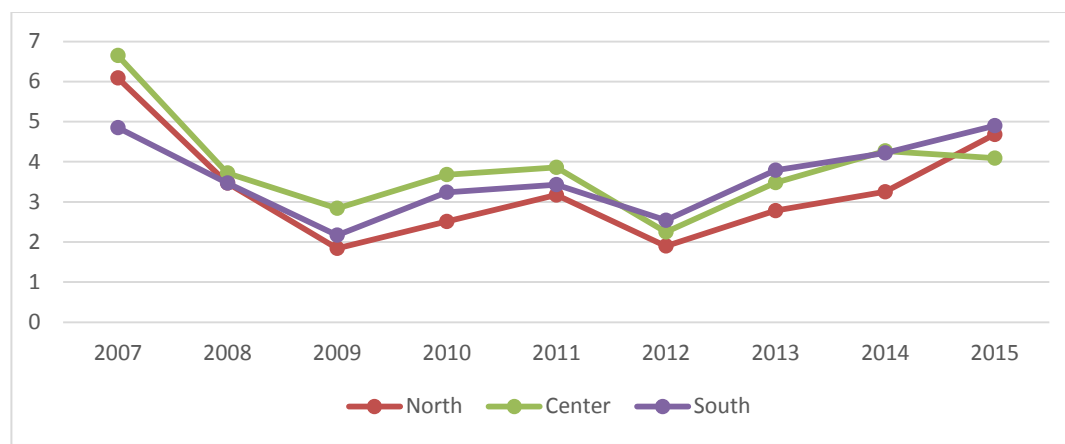


Figure 3: Trend of ROI according to geographic localization (our elaboration).

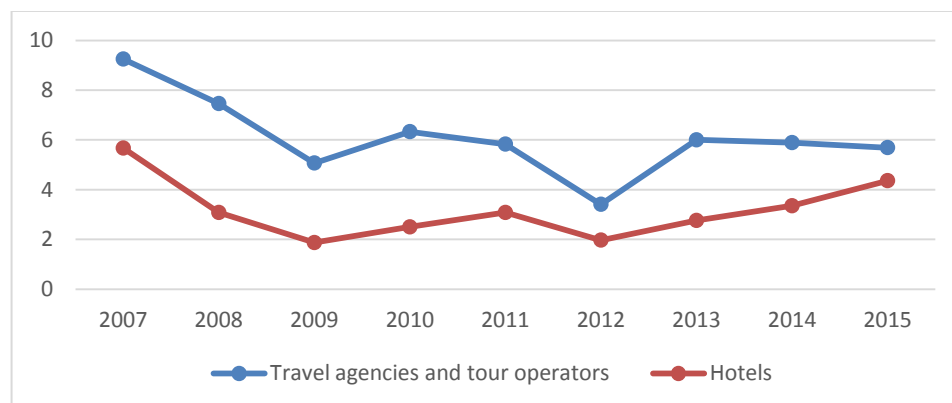


Figure 4: Trend of ROI according to market (our elaboration)

ROS measures the profitability of sales. It therefore relates operating income to sales. ROS should take as high a value as possible. Trend analysis highlights a situation of good profitability (Figure 5-6) both according to geographic localization and according to market. ROS throughout the nine years has always been between 7.58, 2007, and 1.61, in 2012, according to geographical location, and 7.58, in 2007, and 0.64, in 2012, according to the market. The trend of ROS in the nine years is substantially the

same in all geographical areas. In fact, there has been a reduction in ROS from 2007 to 2009, at the beginning of the crisis, with a slight increase in the following years and a new minimum in 2012. In the following years the ROS increases progressively reaching pre-crisis values, with the exception of the center.

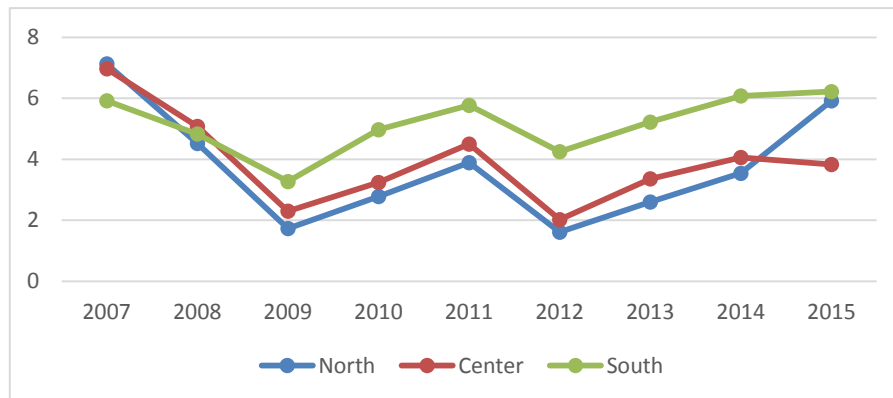


Figure 5: Trend of ROS according to geographic localization (our elaboration).

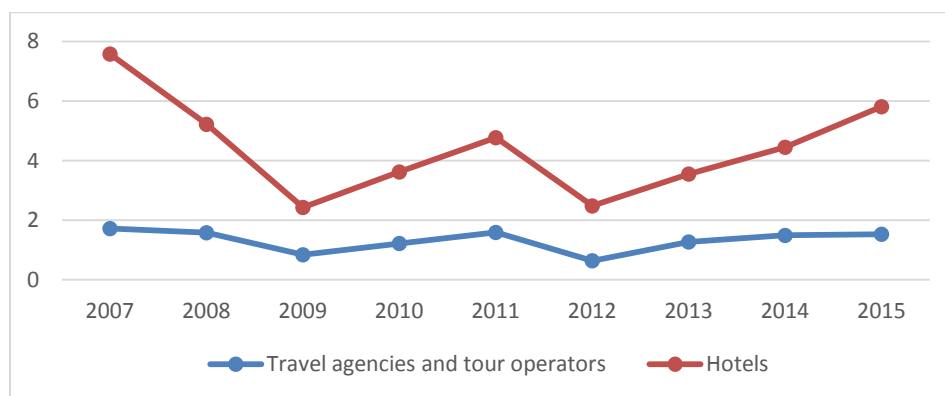


Figure 6: Trend of ROS according to market (our elaboration)

While we consider the classification by business market (Figure 6), the trend is overall stable for travel agencies and tour operators, while it is strongly negative for hotels. In fact, between 2007 and 2015 the ratio decreased from 7.58 to 2.43, with a reduction of 67.94%. Ratio values range between 1.72 and 0.64 in the travel agency. The values of the hotels ROS remain steadily higher throughout the period considered. The trend according to the relevant market shows that ROS of travel agencies and tour operators suffered less the effects of the crisis than hotels, for which ROS recorded the lowest values in 2009, with 2.49 and in 2012, with 2.48. These values tend to increase with the exit from the crisis, although at 5.81 in 2015. This value is similar to that at the beginning of the crisis. In general, we can verify that there are no significant deviations from 2008 values, when the crisis started. However, in the course of the crisis hotels have a ROS trend with greater fluctuations than travel agencies and tour operators. Different conclusions are for ROI. In fact, it is a more drifting trend. Therefore the

hypothesis H1 is partially validated. About the hypothesis H2, we are related to geographic areas. Thus the crisis seems to be on the profitability, especially on the sales, differently for the hotels.

Analysis of variance

About ROI, Table 1 shows the results of the analysis, assuming the geographic area as independent variable. There is no a statistically significant difference between groups ($F(2,24) = 0.529897$, $p = 0.595394635$), in fact $F < F_{crit}$ ($p \text{ value} > 0.05$).

Table 1: ROI - Analysis of variance with geographical localization as independent variable						
Source of variation	SQ	gdl	MQ	F	Sig.	F crit
Between groups	1,482289	2	0,741144	0,529897057	0,595394635	3,402826
Within groups	33,56778	24	1,398657			
Total	35,05007	26				
Significant level at 0,05						

The null hypothesis must not be reject and the alternative ones must not be accept. While if the business market is considered as independent variable the results, set out in Table 2, indicate a statistically significant difference between groups ($F(1,14) = 4,773$, $p = 0,000456543$), in fact $F > F_{crit}$ ($p \text{ value} < 0.05$).

Table 2: ROI - Analysis of variance with belonging sector as independent variable						
Source of variation	SQ	gdl	MQ	F	Sig.	F crit
Between groups	38,39800556	1	38,39801	19,27287	0,000456543	4,493998
Within groups	31,87735556	16	1,992335			
Total	70,27536111	17				
Significant level at 0,05						

The results of ANOVA applied to ROS show that we have to accept the null hypothesis if it is considered geographic localization as independent variable, while we have to reject the null hypothesis if we consider the market as independent variable. Therefore, only, in this last case, there is a statically significant difference between groups (see tables 3 and 4), which is already highlighted by the trend analysis.

Table 3: ROS - Analysis of variance with geographical localization as independent variable						
Source of variation	SQ	gdl	MQ	F	Sig.	F crit
Between groups	10,79832	2	5,399159	2,435587842	0,108883298	3,402826
Within groups	53,20269	24	2,216779			
Total	64,00101	26				
Significant level at 0,05						

Table 4: ROS - Analysis of variance with belonging market as independent variable						
Source of n variation	SQ	gdl	MQ	F	Sig.	F crit
Between grups	43,64894	1	43,64894	30,52557166	4,61447E-05	4,493998
Within grups	22,87862	16	1,429914			
Total	66,52756	17				
Significant level at 0,05						

The results of statistic analysis show that the hypothesis H3 of this research, previously described, is partially tested with regard to ROI and ROS if we consider both geographic localization and business market, while it is fully tested if we consider only business market. In fact, there is a relevant difference between hotel business and travel agencies and tour operators business regard to infrastructural factors which have a considerable role in the profitability of hotels.

CONCLUSIONS

The tourism offer evolves all over the globe, especially because developing countries offer increasingly popular destinations because they are innovative and low-cost.

The Italian tourist offer remains, however, unique in the world considering the wonderful mix of natural, historical and artistic beauties. It also has a long tradition and therefore benefits from a positive reputation.

However, the accommodation facilities are often obsolete, sometimes of modest size, family-run and therefore in need of restructuring and modernization, similar to infrastructures and regulations on a rather complex regional basis.

This study wanted to focus the ability of the main operators in the tourism sector to resist the stimulus of the crisis, measuring their profitability over time, comparing it also with reference to the different areas of the country. It is well known, in fact, that Italy has notable territorial imbalances due also to previous historical events: North is notoriously richer than Southern regions.

The distribution of tour operators highlights these differences, considering their greater concentration in the northern regions and their progressive reduction going from North to South. Nevertheless, the parallelism that is won in the trends of the main income indices among the operators present in the three macro-regions of the Nation is impressive. Both the ROI and the ROS, in fact, follow similar trends throughout the broad period of time considered, with differences in absolute value not high. Wonder, however, the best income performance achieved by the southern companies, considering the less developed economic context: the motivations may be different and should be subject to a more careful and thorough analysis that matches the budget results to other statistical indicators such as, for example, the type of tourist present in the different areas, the place of origin and above all its potential spending capacity. It is probable, in fact, that the south enjoys a flow of customers more wealthy and more willing to spend, considering even the lowest prices.

These outcomes could also be justified by the higher running costs of the northern companies and also by the widespread presence of family-run businesses in South of Italy, which often rely on the

indomitable action of family members that increases the efficiency of the workforce without a simultaneous increase in personnel costs.

We should also analyze the beneficial effects of possible interventions by public authorities in support of southern tourism, considering that over time hotels have also been able to take advantage of operating capital grants that have naturally made the investment more profitable. The crisis has also had its effects on hotels and tourism intermediaries, as is evident from the gradual reduction in income indices in the first three years. However, we must also underline that overall the average figure remains positive, even in the years in which other sectors have recorded almost disastrous results. Clumsy situations followed, however, since 2012 have assumed the clear symptoms of a decisive recovery, with a decidedly increasing trend.

The indicators considered confirm the close relationship between tourism intermediaries (travel agencies and tour operators) and hotels. Profitability follows very similar trends, even if we note an antithetical position considering ROI and ROS: the former, in fact, rewards mainly the tourist intermediaries, contrary to the second.

Also for these trends it would be necessary a deepening combining the income indices with the equity ones. However, some hypotheses could be formulated mainly linked to the composition of the elements measured by the first index which mainly focuses on the profitability of operations. It is evident that tour operators and travel agencies can enjoy lower fixed costs, instead much higher in hotels that are characterized by significantly larger invested capital. These conclusions have elements common to those of the Blázquez-Resino *et al.*'s study, (2018). The management of intermediaries is much more agile, even considering the beneficial effects of the Web that facilitate the relationship with customers avoiding massive uses in structures, however, necessary especially for traditional customers less accustomed to the use of the Internet.

It is, however, necessary to underline that the evident recovery in the profitability of the hotels is followed by a decidedly lower growth in the profitability of the intermediaries who presumably suffer from a reduced demand for their services due to the development of telematics which allows many tourists to design independently their travels avoiding the higher costs of traditional intermediaries.

The setting of the study is original and has no immediate similarity to facilitate a comparative analysis with previous studies.

Some quantitative publications have been mentioned, but they are mainly made up of advanced statistical and econometric tools that are not always relevant to accounting results and are often referred to environmental situations that are very different from Italian ones (Ye *et al.*, 2017; Yang *et al.*, 2017; Wang and Fang, 2010).

The proposals by Camisón *et al.* (2016), Such Devesa *et al.* (2009) and Andreu *et al.*, 2010 have a preferable managerial approach, although limited to the Spanish reality more similar to the Italian one. With exclusive reference to hotels, our results could in some way be compared to the intuitions of Alvarez-Ferrer *et al.* (2018) and especially those of Ben Aissa and Goaid (2016), Marco-Lajara *et al.* (2014), by Al-Najjar (2014) and Xu (2017).

The tourism offer evolves all over the globe. The Italian tourist offer remains, however, unique in the world with her long tradition and a positive reputation: the trends in force oblige, therefore, tour operators and travel agencies to a “strategic revolution”, considering a demand that is progressively decreasing, while maintaining instead a steady steadiness of the hotels. This “strategic revolution” must also consider positive experiences of similar states for tourism culture such as Spain (Bremser *et al.*, 2017; Perles-Ribes *et al.*, 2016).

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SPECIAL ECONOMIC ZONES: AN OVERVIEW*

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ABSTRACT

There are numerous confusions generated by the semantic ambiguities on the special economic zones which, on the other hand, do not find a robust explanation of the economic literature of the company. There are also numerous definitions and acronyms at the international level of the Special Economic Zone, more than three thousand according to some scholars (Klugmann, 2013), susceptible to variation from country to country; ZED in Cuba, ZEDE in Ecuador, SEZ in China, India, Africa; Free zones in the United Arab Emirates, LEAP Zones in U.S .. The paper try to provide an overview of SEZ's concept and its characteristics and a literature review of principal effects of them.

Keywords: Special Economic Zones, Urban Free Zones, Tax, development, fiscal advantages, finance

INTRODUCTION

There are numerous confusions generated by the semantic ambiguities on the special economic zones which, on the other hand, do not find a robust explanation of the economic literature of the company. There are also numerous definitions and acronyms at the international level of the Special Economic Zone, more than three thousand according to some scholars (Klugmann, 2013), susceptible to variation from country to country; ZED in Cuba, ZEDE in Ecuador, SEZ in China, India, Africa; Free zones in the United Arab Emirates, LEAP Zones in U.S. All, however, respond to interventions with reduced taxation or advantage and zero bureaucracy or developed according to models of great operational simplification. The most frequent and recurring notion is that of Special Economic Zones (SEZ), or Special Economic Zone (ZES), in Italian, however, corresponding to an area within a country in which specific financial and economic laws are adopted. with the aim of attracting foreign investors who might be interested in doing business in an area where they receive favourable tax, economic and financial treatments.

Some of the largest ZES are located in China, where the government has started creating such areas

* The paper is a result of a collaborative work. Nevertheless, it's possible to attribute to Felicetta Iovino: methodology of the research; benefits arising from SEZs and disadvantages arising from SEZs; the other sections are of Paolo Esposito.

since 1980, but there are examples also in Europe (Madeira, Latvia) although many free trade zones actually have similar characteristics of the SEZs.

Within the ZES zone, taxes are reduced and can be completely zeroed, companies pay lower rates. The idea behind a special economic zone is that it can be able to stimulate rapid economic growth. By attracting foreign investors, nations can draw on wealth from other countries to improve their economies and living conditions. These areas can develop very quickly, attracting workers from the entire area of reference. Many nations have experienced an economic boom due to special economic zones.

The paper sets several objectives aimed at analyzing the SEZ concept.

The paper, in particular, aims to provide an overview of the concept of SEZs. This will be achieved by presenting the main definitions of SEZ present at international level and the relative characteristics. Furthermore, a further objective will be the clarification of the main benefits, but also disadvantages deriving from the establishment of SEZs. To this end, a brief analysis will be carried out of the main international literature which has highlighted these peculiar aspects over time.

In this sense the main research questions of the paper are:

Q1: What are the main definitions of SEZs?

Q2: What are the main characteristics of the SEZs at an international level?

Q3: What are the main advantages and disadvantages of the SEZs highlighted in the international literature?

In order to answer these questions, the paper follows the main definitions of SEZ, and then there are the words about the advantages and disadvantages of the SEZs and the main conclusions.

SEZS: AN OVERVIEW

Most quoted is the SEZ's definition by Grubel (1984): "a geographically defined area within which certain types of economic activity take place without some of the government taxation and regulation that applies to them in the rest of the economy".

Wei Ge (1999) has defined special economic zones as "characterized in general terms as a geographic area within the territory of a country where economic activities of certain kinds are promoted by a set of policy instruments that are not generally applicable to the rest of the country."

A Special Economic Zone (ZES) is an area, area, portion or geographic region with its own tax-related economic legislation (Mises, 1998, Romer, 2009) and different (Lavoie, 1982), with respect to current legislation in the country of origin and affiliation (Moburg, 2013), as a tax instrument for the benefit of free entrepreneurial initiatives (Ricci, 2011), policy or reformist intervention or fiscal reform (Ricci, 2010). Special economic zones are therefore usually created to attract more foreign investments (Mises,

1998, Bauer, 2000, Moburg, 2013, Boettke and Moburg, 2013), to increase technology transfer and in general supply different benefits, such as tax incentives, lower tariffs and higher tax exemption (Tao, Y., Yuan, Y. and Li, M., 2016). Particular types of SEZ, are realized with the priority purpose of urban and social regeneration, the so-called Urban Free Zones (UFZ) (Esposito, P., Ricci, P., Iovino, F., 2017). Thus now the term Special Economy Zones ("SEZ") covers a broad range of zones, such as free trade zones, export-processing zones, industrial parks, economic and technology development zones, high-tech zones, science and innovation parks, free ports, enterprise zones, and others (Shukoor, A., 2016). Economic activities in SEZs are mainly lead by market forces and have the following characteristics (FIAS, 2008): products are primarily export oriented, creation lies on attracting and utilizing foreign capital, joint ventures with foreign capital, partnerships, and wholly foreign-owned enterprises are the main types of companies and government-led infrastructure development is fairly supported (Tao, Y., Yuan, Y. and Li, M., 2016).

The main characteristics of Special Economic Zones are:

- geographically limited area also in general, with physical security;
- administrated by an unique authority;
- receiving financial and procedural advantages;
- simplified procedures;
- having delimited custom area;
- governed by more liberal economic laws (FIAS, 2008; Shukoor, A., 2016).

According Zeng (2015), SEZs have two main types of objectives, which in part explain their diffusion- "static" economic objectives such as employment generation, export growth, government revenues, and foreign exchange earnings; and the more "dynamic" economic objectives such as skills upgrading, technology transfer and innovation, economic diversification, productivity enhancement of local firms, and also urban and social redevelopment of degraded areas or areas affected by natural disasters (Esposito, P., Ricci, P., Iovino, F., 2017; Scrofani, L., Leone, M., 2016).

The various types of SEZs have been identified by the World Bank through a series of distinctive criteria and are summarized in the following table (tab. 1).

Type of Zone	Development Objective	Physical Configuration	Typical Location	Eligible Activities	Markets	Examples
Free Trade Zone (Commercial Free Zone)	Support trade	Size < 50 hectares	Ports of entry	Entrepôt and trade-related activities	Domestic, re-export	Colon Free Zone, Panama
Traditional EPZ	Export manufacturing	Size < 100 hectares; total area is designated as an EPZ	None	Manufacturing, other processing	Mostly export	Karachi EPZ, Pakistan
Hybrid EPZ	Export manufacturing	Size < 100 hectares; only part of the area is designated as an EPZ	None	Manufacturing, other processing	Export and domestic market	Lat Krabang Industrial Estate, Thailand
Freeport	Integrated development	Size > 100 km ²	None	Multi-use	Domestic, internal and export markets	Aqaba Special Economic Zone, Jordan
Enterprise Zone, Empowerment, Urban Free Zones	Urban revitalization	Size < 50 hectares	Distressed urban or rural areas	Multi-use	Domestic	Empowerment Zone, Chicago
Single Factory EPZ	Export manufacturing	Designation for individual enterprises	Countrywide	Manufacturing, other processing	Export market	Mauritius Mexico Madagascar

Tab. 1. Types of zones. Source: The World Bank, (2008), "Special economic zones: performance, lessons learned, and implications for zone development", Research working paper, n. wps 45869, The World Bank, Washington D.C.

METHODOLOGY OF THE RESEARCH

The methodology adopted to answer research questions is mainly an analysis of the most widespread international literature on SEZs. It has been identified through the use of keywords such as "SEZ" or "special economic zone" in some search engines including Google Scholar, but also databases including Scopus and WOS. In this way, a series of papers were identified that were the subject of an in-depth analysis conducted on-site by the authors. It was flanked by the snowball technique that allowed us to identify further papers. So the identified papers were selected considering those that best responded to the research questions. In fact, the papers that identified the main characteristics of the SEZs, the benefits and disadvantages of their constitution were taken into consideration. A synthesis of the main propositions present in these papers was then made with regard to the investigated aspects.

BENEFITS ARISING FROM SEZS

Different authors have suggested the benefits arising from the establishment of SEZs in a specific area. Most Chinese authors highlight several advantages for China such as gateways for the openness of Chinese markets, clusters of innovative manufacturing and locomotive for area economic growth (FIAS, Foreign Advisory Service, 2008; Zheng and Wang, 2005). Zheng (2016) shows as SEZs promote the development in industrialised regions.

Yeung's study (2009) discusses as the contribution of SEZs in China is promote the economic growth by new policies, capital flows and wide spreading new policies and practices.

Wang (2009) finds three different types of advantages from SEZs. There are: 1) rising of foreign direct investment; 2) increasing of productive growth rate; 3) delivering of innovative technology.

Korhonen and Sankin (2005) find that a particular type of SEZs, EIPs, contributes to raise production capabilities, increase technical efficiencies and synergies.

Jensen's study (2017) finds as Polish SEZs have a positive impacts on employment of about 60%.

Ge (1999) argues that Chinese SEZs may contribute for enhancing financial and economic liberalisation, improving resource use, stimulate economic and structural changes.

Curran, Cook, Hampton, Clark, Yorgey and Anderson's study (2009) lists the key success elements in South Africa.

Chen's study (1993) finds positive effects from Shenzhen SEZ. The main benefits are related to employment, tax revenue, foreign-exchange earnings and technical transfer.

Brautingham (2014) suggests as China invested in Africa for establishment of SEZs. This isn't the main concern of the African government, but SEZs have reached the minimum results of provide infrastructures such as electricity, water and sanitation.

Ambroziak and Hartwell (2017) show that Polish SEZs located in poor areas have had positive impacts. These benefits are reduction of unemployment and a higher gross value of fixed assets (GVFA) per company.

FIAS's study (2008) describes the main long-term benefits arising from SEZs. They are: indirect employment, skills improvement, female employment, technology moving, best practises and development of the area.

Davies and Mazhikeyev (2016) find that SEZs development has beneficial effects on exports of countries with open economy and on value exports of countries with barriers to import.

DISADVANTAGES ARISING FROM SEZS

Literature have suggested several negative effects arising from SEZs. Yang (2008) and Zhang and Li (2007) describe as the local governments subsidise the hosted companies in SEZs with low-price land. In

this way real-estate speculation raise and the SEZs often become isolated island instead of engines of growth (Li, Yang, 2010; Zheng, Zhang, 2014).

Tudor, Adam and Bates' study (2007) describes a range of limitations of a specific type of SEZs, EIPs. They are the potential fragility of the system and challenges due to material fluctuations, that is resources, communication, information, changes in political, economic and environmental policies.

Rawat, Bhushan and Surepally (2011) highlight many controversial effects of SEZs referring to the Indian case. The main concerns are related to environmental negative impacts, if SEZs make real economic positive effects or only a displacement of places and employment. Other negative suggested effects are the community resistance for the way of acquisition of land.

Gopalakrishnan (2007) analyses two main negative effects of SEZs in China, that is real estate speculation and loss of agricultural land and several labour abuse.

Aggarwal (2004) describes as Indian SEZs haven't achieved the positive expected performances because of inadequate policies and regulations, scarce behaviour of the officials, centralised governance, an excess of labour laws an insufficient physical and financial infrastructures.

Ambroziak and Hartwell (2017) collect data, which prove as SEZs in rich Poland areas have had weak or negative effects, such disturbance of competition and distort local market.

FIAS (2008) reports as SEZs have had negative impacts in some countries. They are among others, exploitation of women, lower labour standards and decreasing of labour conditions.

CONCLUSIONS

The present contribution attempts to offer a unitary and comprehensive yet synthetic representation of the distinctive elements of the SEZs.

In this sense, the main characteristics of the SEZs and the different types are presented. Finally, it is clarified through a brief analysis of the literature that the SEZs certainly have undoubted advantages, as evidenced by the majority of the selected studies, but also by the disadvantages. In this way, it is clear that the phenomenon of SEZs can be observed in a critical way, but at the same time the elements on the one hand to be exploited and on the other on which to intervene are revealed.

All this will allow the different actors in the system directly or indirectly involved to obtain the best results from the creation of the SEZs, also promoting further paths for improvement. Some research questions, however, are still open and unexplored to scholars and practioners, especially in multi-disciplinary and multi-professional terms, such as the issues of overcoming the rules, the suspension of rules and conventional legality; the influences and impacts on democracy and the costs of democracy and damage to this; along with the perception that zero-cost measures in the short term, then end up determining further and not well-defined costs in the medium and long term -

produced and generated by institutional disequacy against citizens and businesses, in addition to costs of controls to avoid reputational damage and / or fraud, all in the context of the absolute absence of inter-institutional task forces to identify predictive models against damage and / or risk prevention to which are subjected the already so delicate scaffolding on which the democratic systems of the countries are governed.

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SPECIAL ECONOMIC ZONES: A BRIEF COMPARATIVE EXCURSUS*

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ABSTRACT

The SEZ concept is a very variegated notion that has not a specific clarification in the economic literature. There are also numerous definitions and acronyms at the international level of the Special Economic Zone, more than three thousand according to some scholars (Klugmann, 2013), being different from country to country; ZED in Cuba, ZEDE in Ecuador, SEZ in China, India, Africa; Free zones in the United Arab Emirates, LEAP Zones in U.S. The paper tries to provide an overview of SEZ's concept and some different cases of them.

Keywords: Special Economic Zones, Urban Free Zones, Tax, development, fiscal advantages, finance, Emergent countries.

INTRODUCTION

The creation of special economic zones has affected several countries around the world including: the People's Republic of China, India, Jordan, Poland, Kazakhstan, the Philippines, North Korea and Russia.

SEZs are forms of "tax advantages", which have been established for a long time in order to ensure particular places - a district, a port, a production area - benefits of a fiscal and regulatory nature. These tools allow us to determine real conditions of commercial and productive advantage. Among them the Urban Free Zones (set up for the first time in France in 1996), are an effective tool for local development. It is one of the tools aimed at pursuing more solidaristic and economic goals.

In fact, the ultimate goal of the Urban Free Zones (ZFU) is "to favor the economic and social development of neighborhoods and urban areas characterized by social, economic and occupational disadvantages, with potential for development with unexpressed development potential" by means of tax concessions, contributions and social security contributions. The experience of SEZs began in China in 1980 with the creation in Shenzhen of the first and most important SEZ close to Hong Kong. Over time it has grown exponentially becoming one of the main financial and business centers globally. In this way, the creation of further SEZs throughout China

* The paper is the result of a collaborative work. However, it's possible to attribute to Felicetta Iovino: SEZs in India and SEZs in MENA countries; the other sections are of Paolo Esposito.

began. The positive Chinese experience has led many emerging countries in the years following the creation of similar SEZs. Many of them are aimed at guaranteeing tax benefits of various kinds in favor of companies, particularly in the most technologically advanced sectors and also at startups.

Here, multiply similar experiences, using existing legal tools and proceeding to the widespread establishment of the SEZ often in strategic places, but also widespread in the country. This creation was often made by differentiating, depending on the characteristics of the settlement territory, the productive sector subject to incentive. In this sense, the goal is to create productive districts that become crucial in the economy of each country, allowing companies to network and, in this way, attract high quality foreign investments.

The paper aims to explore the concept of SEZ in some emerging countries. In particular, we want to highlight the main characteristics, the reasons for the success, but also the negative aspects of the establishment of the SEZ in China, India and in the MENA countries.

- What are the main characteristics of SEZs in emerging countries?
- What are the reasons for their success?
- What are the main negative impacts caused by their establishment?

The paper then, after a brief introduction to the SEZ concept, proceeds with specific paragraphs on the SEZs in China, India and in the MENA countries. Finally, the main conclusions of the aforementioned analysis are summarized.

ZESS IN THE CHINESE POPULAR REPUBLIC

The adjective “special” in the People's Republic of China refers mainly to indicates special policies and flexible interventions aimed at managing the economic system. The main policies and interventions include the following:

- special tax benefits for investments made by foreigners in the SEZ;
- extensive autonomy aimed at managing activities related to international trade.

The activities of the Chinese special economic zones are characterized by some fundamental principles:

- the structures created primarily for the purpose of attracting and using foreign capital;
- the economic activities are organized through the creation of joint-ventures between Chinese companies and foreign companies and also through companies with entirely foreign capital;
- the products are basically made for export to foreign markets;
- economic activities are governed by the principles of the liberal market system.

National planning and financial planning indicate the special economic zones of the People's Republic of China separately. The provincial authority has the competence of the economic administration of

the SEZs. The legislative authority in relation to the SEZs is attributed to the congress and local governments.

Box 1 - The special economic zones of the People's Republic of China

In the Guangdong Province: Shenzhen, Zhuhai and Shantou

In Fujian Province: Xiamen

Entire province of Hainan

The SEZs were created with the aim of creating a model of growth and modernization for the whole of China, forming innovation centers and production best practices. In this way, they are able to confront and compete with the most advanced industrial districts of the world's largest economies. The term Chinese SEZ calls to mind therefore words like progress, development, investments, GDP growth and employment (Mack, 2017). However, the Chinese SEZs are also carriers of pollution, degradation of local ecosystems and environmental devastation. The Zes, the Special Economic Zones, were born in the late seventies and have since formed the main engine of the Chinese locomotive. By virtue of the special subsidized tax regimes they benefit from and the ad hoc regulation that regulates the activities that focus on them, aimed at attracting foreign companies and investments, these areas are one of the crucial growth tools used by China in the last decades .

However, the environmental problems associated with this hypertrophic growth are of great weight. The plant, animal and ecological heritage that is included in the Zes is in fact particularly at risk. In fact, the high production rates of the SEZ and the increasing amount of waste and harmful emissions generated by them expose the environment of the SEZ and the surrounding environment, in particular, to serious risks and to significant and constant damage. However, the Chinese SEZs have been very successful with employment growth, GDP and exports above the national average.

The reasons for the success of the Chinese SEZs are due to a number of key factors, in particular:

- a wide legislative delegation in the commercial and administrative areas coordinated in compliance with the national planning for the areas outside the SEZs;
 - availability of high quality infrastructures, such as ports, roads, airports, various lines of communication and services;
 - flexible and numerous financial services;
 - a highly efficient local government system capable of creating the best environment for SEZs;
 - the variety of the population of the SEZs, in particular Shenzhen, consisting mainly of immigrants.
- This favors the exchange and the fusion of different ideas and cultures;
- the favorable geographical location of all the Chinese SEZs, close to strategic infrastructures, mainly

ports, but also important financial centers. The latter is the case of Shenzhen very close to Hong Kong, the international financial center of Asia (Tao, Y., Yuan, Y. and Li, M., 2016).

ZESS IN INDIA

The creation of the Indian special economic zones was initiated by the central government in April 2000 in order to make them as foreign territory in relation to the main business, ie commercial, tax and customs aspects. The Indian government has essentially replicated the Chinese model for its special economic zones. The declared objectives of the Indian SEZs are, among others, the increase in foreign investments, the increase in the level of national exports and the realization of the conditions in order to ensure that Indian companies are competitive in the global market. In fact, even the Indian SEZs are indicated separately in national and financial planning and have a provincial level authority on economic administration, which has legislative authority (Agarwal, 2006). The Indian government has also allowed the transformation of the "Export Processing Zones" (economic zones characterized by the production of products for export) into special economic zones (Soundarapandran, 2012).

Box 2: Indian SEZs

Kandla e Surat (Gujarat)

Cochin (Kerala)

Santa Cruz (Mumbai–Maharashtra)

Falta (West Bengala)

Chennai (Tamil Nadu)

Visakhapatnam (Andhra Pradesh)

Noida (Uttar Pradesh)

In 2005, the Indian Government issued the SEZ Act. The primary objective of this provision is to promote the industrialization process (Naresh Reddy, G., 2009), through increased exports, infrastructure development and upgrading, the level of technological innovations. Indian SEZs offer several benefits including:

- tax benefits;
- long-term low rents;
- provision of services and infrastructures;
- provision of a single administrative desk;
- simplified procedures;
- exemptions from various restrictions typical of the internal market.

The Indian SEZs were able to set up some real clusters specialized in products such as jewelry,

software and electronic products.

The reasons for the success of the Indian SEZs are:

- special tax incentives for foreign investments;
- greater independence in international trade activities;
- production aimed primarily at export;
- no import license required;
- full freedom of sub-supply;
- no verification by the authorities of imports and exports.

The Indian SEZs, like the Chinese ones, have also brought about important issues related to environmental degradation and the resulting effects on human health and the environment, on the rights of workers and women and other negative social impacts.

The impact of the Indian SEZs after the implementation of the SEZ Act is summarized in the following table (Figure 1).

Number of Formal approvals (As on 04.06.2018)	419		
Number of notified SEZs (As on 04.06.2018)	355 + (7 Central Govt. + 11 State/Pvt. SEZs)		
Number of In-Principle Approvals (As on 04.06.2018)	32		
Operational SEZs (As on 31 st March, 2018)	223		
Units approved in SEZs (As on 31 st March, 2018)	5,146		
INVESTMENT	Investment (As on February, 2006)	Incremental Investment	Total Investment (As on 31 st March, 2018)
Central Government SEZs	Rs.2,279.20 cr.	Rs.16,599.12 cr.	Rs.18,878.32 cr.
State/Pvt. SEZs set up before 2006	Rs.1,756.31 cr.	Rs.11,259 cr.	Rs.13,015.31 cr.
SEZs Notified under the Act	-	Rs.4,43,023.74 cr.	Rs.4,43,023.74 cr.
Total	Rs.4,035.51 cr.	Rs.4,70,881.86 cr.	Rs.4,74,917.37 cr.
EMPLOYMENT	Employment (As on February, 2006)	Incremental Employment	Total Employment (As on 31 st March, 2018)
Central Government SEZs	1,22,236 persons	1,14,035 persons	2,36,271 persons
State/Pvt. SEZs set up before 2006	12,468 persons	86,571 persons	99,039 persons
SEZs Notified under the Act	0 persons	16,41,906 persons	16,41,906 persons
Total	1,34,704 persons	18,42,512 persons	19,77,216 persons
Exports in 2015-16	Rs. 4,67,337 Crore		
Exports in 2016-17	Rs. 5,23,637 Crore		
Exports in 2017-18 (As on 31 st March, 2018)	Rs. 5,81,033 Crore		

Fig. n.1 – Fact Sheet on Indian SEZs – source: <http://sezindia.nic.in/upload/5b16778e5e714FACTSHEETupdatationonSEZIndia.pdf>, Retrieved on 1st May 2018

SEZs IN MENA COUNTRIES

MENA countries (Dassel, Eckermann, 2013) have been created over the past 30 years principally both trade free zones and special economic zones (Del Federico, 2009). They are therefore characterized by the prevailing economic aspect that distinguishes them. These SEZs are derived from Free port zones, which were just simple storage areas and without customs duties. They were then transformed into export processing zones for re-export and special economic zones with numerous exemptions from the regulations of the host country. The SEZs of MENA's countries have different characteristics in each country in the area, as well as its investment environment. However, it is possible to identify common elements. In fact, SEZs have strong and different regulatory benefits, with significant administrative simplifications of the procedures for firms established in the areas. There are authorities in the one-stop shops that deal with all necessary licenses and permissions and carry out a check of regularity on SEZ companies.

Another principle benefit from foreigners who often characterize the host country. In fact, other incentives are supplied by many SEZs in the Mena countries are always different from national legislation, which may be bought by foreigners or for long or different periods, even with state aid. These countries have many trade restrictions, but they have been operating in the SEZs. The areas of SEZs of the MENA countries are usually close to ports and airports and with better physical infrastructures than those of the other zones of country. Thus, SEZs are established in these countries for the purpose of implementing investment attractiveness strategies through state interventionist policies whose objective is to achieve economic and industrial development (Bohmer, Christiansen, OECD, 2004).

The number of SEZs in the MENA countries has grown exponentially over the years, as well as in the rest of the world, as shown in the following graph (Figure 2).



Fig. n. 2: source: Economist (2015)

The results achieved by SEZ countries in the MENA countries, as shown previously for the Indian SEZs (Figure 1), are positive relative to the main indicators. As shown in the figure below (Figure 3), the extent of trade, and the increase in time over time as it is assumed to be higher values not only globally but also in same state.

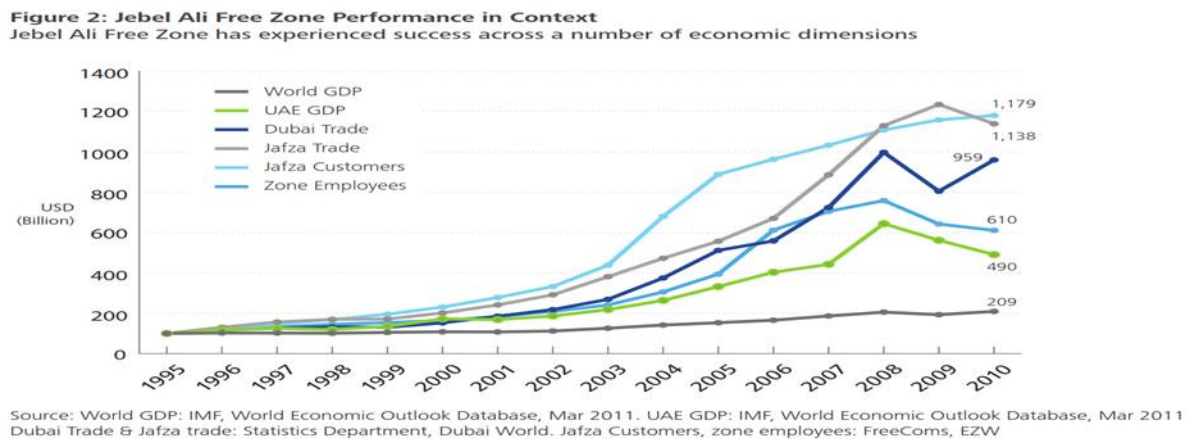


Fig. 3: source: (Dassel, K., Eckermann, 2013)

The main factors of success of MENA's SEZs are different and some may be useful to improve the experience of the other countries.

The below table show the main characteristics (Figure 4):

Characteristics	MENA's countries
Government Goal	Diversification Economy and Free Market Opening
Primary recipients	Foreign Investments (FDI)
Types of firm	Large and Small Businesses
Nature Action	Commercial
Types of zones	Exporting processing / trade zone Industrial zone

Fig. 4 – source: our elaboration from: Esposito, P. Ricci, P. Iovino, F. (2017).

CONCLUSIONS

In spite of the economic advantages of the international experiences of the SEZs, it is not possible to analyze and observe the different elements of critical and institutional and democratic weakness that the SEZ mark and determine by influencing the economic policies of the promoting countries, linked to the fact that tax reliefs are directed only to certain categories of companies, and that, moreover, the increase in the employment of subsidized companies is mostly offset by the reduction in non-subsidized ones. Secondly, more than favoring new employment, tax relief incentives the shift of production activities from the neighboring non-incentivized areas to the EZ (De Blasio, Accetturo,

2007). If you want to encourage the creation of an enterprise with the Zfu, you must be sure that these will remain in place for a sufficient number of years. The current nine-year exemption period appears reasonable. However, the appropriations do not keep their promises. The criteria for identifying Zfu must be transparent and based on objective indicators of urban degradation. It would be desirable for the Ministry of Economic Development to provide an indication of the eligible urban areas, together with those already identified as Zfu. Based on objective indicators it allows to limit the distortions induced by local political interests; facilitating and facilitating, it also submits the evaluation activity. The Zfu represent smaller portions of the municipalities of which they are part, but the evaluation activity - necessary to understand whether the intervention works or not - is currently limited by the availability of data to a level of aggregation finer than the municipal . It would be desirable for the start of the experimentation to take place at the same time as a commitment to collect information, without which we will never know if these interventions have been served or not. The collected data should not refer only to the areas that will be identified as Zfu, but it would be advisable to have information also on the candidate areas to become Zfu, and then excluded, and which represent the natural control sample (De Blasio, Accetturo, 2007).

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FROM THE UFZS TO THE SEZS: THE ITALIAN CASE¹

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ABSTRACT

The economic crisis, but also specific territorial conditions, have led many countries to adopt measures aimed at attracting national investments, but also international ones. In this context, the UFZs were introduced in Italy. However, this intervention showed some critical issues that led to the establishment of the SEZs. This paper, after the presentation of the UFZ phenomenon in Italy, illustrates its main negative aspects. In order to overcome these, the creation of the Italian SEZs takes place.

Keywords: Urban Free Zones (UFZ), Special Economic Zones (SEZ). Advantage Taxation,

1. INTRODUCTION

The concept of special economic zone presents many ambiguities due mainly to different semantic specifications. There are also many definitions and international acronyms of the Special Economic Zone, more than three thousand according to some scholars (Klugmann, 2013), which vary from country to country; ZED in Cuba, ZEDE in Ecuador, SEZ in China, India, Africa (ICE, 2010), Australia; Free zone in the United Arab Emirates, LEAP or EZ Zones in the United States (Hodge, Komarek, 2016). However, all the definitions refer to the granting of tax concessions, regulations and even administrative ones, allowing a notable simplification of operations. The most widespread notion is the Special Economic Zone (SEZ), or Special Economic Zone (ZES), in Italian. This area is special precisely because it is an area within a country to which legislation is applied, particularly tax and administrative, which provides numerous exemptions and simplifications, such as to attract the interest of foreign investors. In fact, they are attracted by the possibility of receiving substantial tax, financial and financial benefits. A Special Economic Zone (SEZ) is an area, portion or geographical area with its own (Mises, 1998; Romer, 2009; Esposito, 2012, 2014, 2015) and different (Lavoie, 1982; McLauren, 2017) tax legislation compared with the legislation in force in the SEZ settlement country (Moburg, 2013) as a tax lever for free business activities (Ricci, 2011), policy or reform or tax reform (Ricci, 2010) and also for ecological purposes (Monagham, Nort, Southern, 2016; IGBC, 2015). The

* The paper is the result of a collaborative work. However, it's possible to attribute to Felicetta Iovino: the results of Italian UFZs and SEZs in Italy; the other sections are of Paolo Esposito.

attraction of foreign investments, particularly multinationals, is the main reason for the creation of SEZs (Mises, 1998, Bauer, 2000, Moberg, 2013, Boettke and Moberg, 2013). The first and largest SEZs have been created in China since the 1980s (Zhao, Kuo, Wang, 2016), but there are also many in Europe (Madeira, Poland, Latvia) and Africa (ILO, 2012) also if many free zones have similar characteristics. The primary objective of the SEZs is to allow rapid economic growth through the attraction of investors, including foreign ones. The improvement of the conditions of life and economy of the country thus passes through the inflow of wealth from other states. The SEZs become catalysts of the workforce, determining a strong demand for human resources, coming from the whole area of reference. Many countries have experienced experiencing a real economic boom following the creation of special economic zones.

The aim of the paper is to highlight, through an analysis of the literature and other secondary sources, the phenomenon of UFZs in Italy and the main reasons that led to the creation of the SEZs. In fact, the main research questions are:

Q1: What are the characteristics of UFZ in Italy?

Q2: What are the main reasons for their creation?

Q3: What are their greatest critical issues?

Q4: What are the peculiarities of the SEZs in Italy?

The paper is first and foremost articulated in a section that identifies the main characteristics of the UFZ in Italy and the process that led to their creation. Then follows a paragraph that outlines the main results of the experience of the UFZs, then a further paragraph describing the introduction of the SEZs in Italy and finally the final considerations.

2. THE ITALIAN URBAN FREE ZONES (UFZ): A DEVELOPMENT TOOL FOR LOCAL FINANCE

The urban free zone (UFZ) is a subject of considerable appreciation for the development of the territory in Italy. In fact, the Italian Ministry of Economic Development - Department for Economic Development and Cohesion has identified 22 UFZs in the national territory (MEF, 2009). The tax lever, a distinctive feature of the UFZ, is indisputably the most effective means of promoting and sustaining the growth and attractiveness of investments.

The Urban Free Zone (identified for the first time in France in 1996) (Di Risio, 2011) is a fundamental means to concretely intervene in the realization of local development. It is one of the different ways of "taxation of advantage", which arose from the outset precisely to ensure certain areas - a district, a port, an area of production - those tax and regulatory facilities that determine real commercial and

productive spaces. The UFZs are among the tools that are more oriented towards solidarity rather than economic objectives (Scrofani, Leone, 2016).

The creation of the UFZs was established by the 2007 Finance Law, then amended by the 2008 Finance Law. These areas were to arise in those urban areas and districts characterized by high social and economic disadvantages quantified by the socio-economic disadvantage index calculated through the combination of four indicators of socio-economic exclusion, each identified for the areas concerned: unemployment rate, employment rate, youth concentration rate, schooling rate (Luchena, 2016).

The tax benefits deriving from the creation of the UFZ are embodied in a series of fiscal and social benefits for small and micro enterprises that start new activities in the area and specifically (MISE, 2015):

- total tax exemption from income tax for individuals and natural persons (IRES and IRPEF) for the first five years of tax;
- exemption from the regional tax on production activities (IRAP);
- exemption from the municipal property tax;
- total exemption from the payment of social security contributions to employees (Barabino, 2017).

These exemptions are progressively reduced starting from the sixth year of the activity (60% from the sixth to the tenth, 40% for the eleventh and twelfth, 20% for two consecutive years).

These exemptions and simplifications are contained in the Interministerial Decree 10/04/2013 as well as in further measures (Legislative Decree 179/2012, Interministerial Decree of 21/01/2014, Decree No. 78/2015, Decree No. 244/2016; MISE 10/03/2016, Decree No. 50/2017).

By means of these benefits (tax, regulatory, administrative and social security), the FOM mainly aims to stimulate, incentivize and root the business activity locally in areas with significant social and economic disadvantages. The measures implemented for this purpose are of a social-welfare nature and aim at reducing the hardship of the resident population and increasing the dynamism of the area. To all this is added also the fight against delinquent phenomena, unemployment and undeclared work.

The implementation of the UFZs, however, is not new. In fact, other countries have spread this tool on their territory in order to promote their business fabric. For example, the United Kingdom has created the Enterprise Zones (24 only in England). They are generally focused on a specific sector and offer different incentives and tax breaks for startups in the first five years of life. In this way, they promote the registration in the country of patents and intellectual property deriving from industrial research. Furthermore, the recognition of a tax credit on R & D is envisaged which makes it possible to make the country attractive even in times of economic crisis and possible tax losses for companies.

The administrative procedure on the UFZ

The definitive document establishing the UFZs provides that particular benefits are to be assured to the urban areas of 22 Italian cities with significant social disadvantages.

The DPS has been responsible for coordinating the process between the institutions concerning the presentation and evaluation of the proposed projects. The objective indicators were used to identify the areas. They were based on the infra-municipal data of the 2001 census.

After obtaining the favorable opinion of the National Conference on March 25, 2009, the technical proposal drafted by the DPS was approved by the CIPE at its session on May 8, 2009. These forecasts were merged into a "Dissemination and award resolution to 22 Urban Free. Areas for fiscal and social benefits in favor of new production sites".

The approval of the CIPE was the central step for the implementation of the prepared final document. On 11 June 2009 the DPS initiated the notification procedure for the aid scheme, registered under no. 346/2009, to the competent services of the Competition DG of the European Commission. The obtainment of the European authorization allowed the effective entry into force of the benefits envisaged by the operating rules indicated by the Ministry of Economy and Finance.

UFZ policy

22 Italian cities include the areas identified by the CIPE in 2009 for the first experimentation of the UFZ instrument.

The areas in which the first UFZs are present are located at:

Andria, Cagliari, Campobasso, Catania, Crotone, Erce, Gela, Iglesias, Massa-Carrara, Lamezia Terme, Lecce, Matera, Mondragone, Naples, Pescara, Quartu Sant'Elena, Rossano, Sora, Taranto, Torre Annunziata, Velletri, Ventimiglia

Over time, the number of UFZ has increased significantly, prompting the Italian Government with the two-measure 2016 Stability Law. First of all, the territory of the UFZ has been limited to that identified by the CIPE resolution no. 14 of 08/05/2009 (Law 208/2015; Luchena, Rinaldi, 2016; Chamber of Deputies, 2017). Furthermore, the creation of new areas in Lombardy was planned and subsequently by Decree no. 50/2017 also in the municipalities of the province of Rieti affected by the earthquake.

Municipalities have been the central actor in the process of identifying urban free zones. In fact, the municipalities had to identify the areas, formulate the proposed projects, identify the management methods and plan other and possible investments to be carried out on the same territory in order to maximize the overall results of the interventions.

The Circular of the DPS of 26 June 2008 specified that the project proposals were sent to the structure responsible for the single Region in the terms indicated in the CIPE Resolution no. 5 of 30 January 2008, published in the Official Gazette of 6 June 2008.

The municipal administrations have formulated their project proposals by preparing a specific document, which has indicated in detail:

- the presence of eligibility requirements for the municipal territory;
- the presence of eligibility requirements for the identified UFZs and their goals;
- the calculation and extent of the socio-economic disadvantage index (IDS);
- the reasons for the UFZ proposal;
- the management methods of the project;
- the indication of further and possible programs and projects for the upgrading of the areas indicated.

In order to facilitate the technical investigation of the administrations involved, IL DPS attached to its circular a type of index that indicated in a structured way the information required in order to adequately prepare the project proposals. The introduction and effective functioning of the UFZs guarantees a real growth and development promotion potential, especially in addition to additional incentives aimed at encouraging small and medium-sized enterprises. In fact, these measures can create positive conditions capable of attracting investments. This can promote the growth of the Italian economy through the opening of new companies and production facilities, the reorganization of existing companies and their financial capitalization. In this way a virtuous circle will be created, capable of creating new jobs and the emergence of an economy of knowledge.

3. RESULTS OF ITALIAN UFZS

The general economic crisis has forced most governments in different countries to adopt integrated measures that would combine the search for economic competitiveness along with social cohesion and the enhancement of territories. In this context, the UFZs in Italy were introduced. Significant progress has been achieved in granting the benefits in January 2015 compared to L'Aquila's first experience, by virtue of the use of digital procedures (De Angelis, Pagliarini, 2016).

Nevertheless, the MISE (2015) data specify that at 31/01/2015 the average national indemnity benefit rate is only 31%. This data highlights how, in reality, the objective of economic and social development of the territories included in the UFZs is achieved only modestly. Furthermore, it should be noted that among companies excluded from benefits there are "companies in difficulty", ie all those companies that lost $\frac{1}{4}$ of their subscribed capital or those involved in insolvency proceedings in the previous year. Among these companies, there are many of the s.r.l. with a share capital of 1 euro, whose establishment took place with the aim of promoting economic and

social development (Esposito, P., 2015).

It must be considered that from the initial 22 initial UFZs, 46 have been reached, plus another 10 out of the convergence target called UFZ of the second generation. The 2nd generation UFZs have been created to tackle emerging events such as earthquakes and floods. However, they have substantially changed the original objective of the social and urban recovery of the areas concerned (Scrofani, Leone, 2016, MISE, 2015). In addition, an "enveloping effect" is added which can cause more difficulties than advantages. In fact, initially a maximum of 2 UFZ were foreseen per region, but this limit has long been overcome by dispersing the sense of the interventions. Faced with inert legislation, politics has often intervened without adequate tools to understand and tackle risk, but by creating mixtures with opportunistic political bets "(Ricci, 2015) .This way, the excessive spread of free zones has This has certainly led to exaggerated inequalities between areas outside the area often characterized by tax evasion and the free zones that instead benefit from tax incentives without them becoming a real factor in The tax advantage for some areas could therefore result in a disadvantageous taxation for the neighboring territories excluded from the free zones (Esposito, Ricci, 2015) .The urban free zones are certainly at least an intention to develop, but they also have considerable risks that are often unavoidable. These risks include the transfer of operational sites, the constraint of development in an area, the abandonment of neighboring communities by families and businesses, and the risk of not respecting the identity and vocation of a given territory (Esposito, Ricci, 2015) beyond that probable phenomena of clientelism. A further critical element is also the temporary nature of the interventions, in particular for the areas in which emergencies have arisen due to natural disasters (Buccico, 2008). In fact, the time forecast may seem reasonable, but the lack of funds does not allow the intervention to be lasting and effective (MISE, 2015; Luchena, Rinaldi, 2016; Scrofani, Leone, 2016; De Blasio, Accetturo, 2007) also in terms of perception (De Leo, 2011).

Therefore it is first of all necessary to increase the funds available for these instruments. Furthermore, an increase in coordination between Municipalities and the central government, as well as greater responsibility of the former in identifying the SFVO (Svimez, 2016), will reasonably allow the FUT instrument to become more effective by bringing it back to the original project. Greater control over the benefits granted and the measurement of the real impact on the area will allow a more accurate selection by the UFZ of the companies to be financed.

Finally, the performance of the UFZs can be isolated from those of other economic forces, and this makes it possible to consider these bankruptcy areas, precisely because they do not meet the development objectives of the territory that they had set themselves with their creation.

4. SEZS IN ITALY

To meet the critical issues that emerged from the experience of the UFZ in Italy, the Government has planned the establishment of SEZs in the south of the country. Their creation constitutes a partial overcoming of the UFZ in Italy, but also and above all a greater focus on the more strictly economic aspects.

In fact, also on the basis of similar experiences in other European and non-European countries (Esposito, P., Ricci, P., Iovino, F., 2017), in particular those on the shores of the Mediterranean, art. 4 co. 3 of the law decree n. 91 of 2017, converted by law n. 123/2017, envisaged the establishment of the SEZs.

Subsequently the Decree of the President of the Council of Ministers n. 12 of 25/01/2018 approved the regulation for the creation of SEZs in Southern Italy.

The purpose of these SEZs is to offer favorable tax, regulatory and administrative conditions in order to relaunch the port areas and those connected to them. They have some characteristics. First of all, SEZs may arise in the southern regions (Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardinia and Sicily) for a maximum extension provided for by the regulation with which their creation was approved (Villani, M. Attanasi, F., 2018).

Furthermore, they must be created in port areas and also economically linked to them with three characteristics:

- must arise within the confines of the State, in a clearly delimited and identified geographical area;
- may also consist of areas that are not necessarily contiguous, provided they have an economically functional link;
- include a port area connected to the trans-European transport network (Article 3).

The SEZs can also be interregional if a region does not have port areas. In fact, they will be able to associate with another region that has at least one port area and present proposals of interregional SEZs (Article 4).

The establishment of the SEZs takes place with a specific procedure.

First of all, each region concerned must submit a strategic development plan of the SEZ that identifies all the characteristics of the SEZs and the relevant areas concerned, together with the SEZ's proposal (Article 5-6).

The President of the region, after hearing the mayors of the areas concerned, presents, in compliance with the state aid regulations, the development plan to the President of the Council of Ministers. The actual institution of the SEZ will take place through a special decree of the President of the Council of Ministers, on the proposal of the Minister of Territorial Cohesion and the Mezzogiorno (Article 7).

The advantages deriving from the establishment in the SEZ area are foreseen in the same regulation as the institution of the President of the Council of Ministers, however the individual regions can foresee further advantages for what they are responsible for. In fact, the investments made in the SEZs will enjoy a tax credit proportional to the cost of the purchased goods, by 31/12/2020, within the maximum limit, for each investment project, of 50 million euros. This measure was specifically introduced with the aim of encouraging the establishment of large international companies, also in order to make South Italian ports more and further open to transactions on a global scale.

In order to achieve real economic development of the SEZ areas, the regulation (article 7) provided for the revocation of benefits for those companies that will not keep their companies for at least 7 years in the areas covered by the intervention or that the company is in a state of liquidation or dissolution. Similarly to what is already happening in other countries, a special management and administration authority has been set up by the SEZ, ie a Steering Committee (Article 8), consisting of a representative of the region, the Presidency of the Council of Ministers, the Ministry Infrastructures and the President of the Port Authority.

At present, the SEZs of the Campania Region and Calabria (Lamboglia, A., 2018) are constituted by specific decrees of the President of the Council of Ministers of 11.05.2018. The establishment of an inter-regional SEZ between Puglia and Basilicata (USB, 2018) is being defined. The main distinctive features of the two interventions promoted in Italy are summarized in the following figure (Fig. 1):

Differences	Italian SEZs	Italian UFZs
Government Goal	Development of Southern economy	Development and recovery of local communities
Primary recipients	Foreign Investments (FDI) and Italian investments	Italian Investments
Types of firm	Large and Small Businesses	Small and Micro Businesses
Nature Action	Commercial	Economic-Social
Types of zones	Exporting processing / trade zone Industrial zone	Urban free zone Rural Development Areas

Fig. 1 – source: our elaboration from: Esposito, P., Ricci, P., Iovino, F., (2017).

5. CONCLUSIONS

From the Law n. 296/2006 (art.1, code 341/341 / ter) which established the Urban Free Zones to the circular of the Inland Revenue no. 39 / E of 24/12/2013 and the subsequent measures that respond to application problems, years of long travails have passed in order to favor a process of recovery and development of micro and small Italian companies. The disturbing data that emerges from the first

surveys of the experiential results of the Urban Free Zones in Italy, is linked to the uncertainty and uncertainty according to which the tax exemption may have favored or helped to foster an increase in development and which are the limits of these measures.

Admitted to the tax benefit in Italy, of such facilities, were and are micro enterprises (which have less than 10 employees and have a total annual budget that does not exceed 2 million euros), small businesses (with less than 50 employees and a budget total annual amount not exceeding 10 million euros) in full of their activity and regularly registered in the Register of Companies on the date of submission of the application (whose deadline expires on 28 April next), but also professional firms that carry out their own activities in the form of an enterprise within the ZFU area and regularly registered in the same register.

Among the excluded, "companies in difficulty", ie those companies that lost $\frac{1}{4}$ of their subscribed capital in the previous year or those companies involved in insolvency proceedings. The paradox is that this category also includes srls, simplified companies that, born with a minimum capital of 1 euro, under-capitalized, not solving meta-cultural and then business economic issues, such as the dimensional between ownership and control, and the size of capital and investments in a tax liability regime. From the first experiences in Italy, in fact, many perplexities emerge regarding the inorganicity between the original design of the legislators and the subsequent directives implementing the law. One of the oddities is that if at the central level there is a tendency to encourage continuity of development in the ZFU, at local level, for example in some municipal administrations, a process of discontinuity and exclusion of some roads with commercial realities has been carried out. very respectable. Thus, while opportunities are offered to nearby local businesses, the boundaries of the free zone have been set in order to secure tax revenues. In fact, the absolute lack of a participatory concertation and horizontal subsidiarity is recorded in an alarming manner. A further limit can be found in the quantitative dimension of the free zones. For a total of 22 ZFU on a national scale, it was emphasized that only the four regions of the "Convergence Objective", ie Campania, Calabria, Sicily and Puglia, had according to the latest available data of the Italian Ministry respectively 9, 7, 17 and 11 ZFU. The Italian Italian legislator has moved between empty political and regulatory, without having the appropriate tools to interpret and tackle the risk, confusing the latter with opportunistic political bets (Ricci, 2014). Therefore the excessive diffusion of the free zones has generated action spans that are too close together that risk creating excessive inequalities between areas excluded from the area in which the process of tax exemptions and free zones are active, which benefit from tax concessions without being at the same time as a development factor for those who are not exempt. Taxes of "advantage" for some areas therefore risk translating into "disadvantaged" taxation for adjacent territories excluded from free zones.

Ultimately, the urban free zones, in addition to being a driving force for development, also entail unequivocal risks, including the relocation of the operational headquarters, the development constraint in a single area (given the five-year residency requirement in the ZFU for 30 % of employees of non-sedentary companies), the abandonment of neighboring communities by families and businesses and the risk of not respecting the identity and vocation of a given territory.

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A CONCEPTUAL FRAMEWORK AND RESEARCH PROPOSITIONS ON RESOURCE SEEKING CHINESE FIRMS MODE OF MARKET ENTRY IN EMERGING MARKET

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ABSTRACT

In the past three decades there have being an increase in the number of Trade Agreements (BTAs) globally. These agreements involve huge human and financial movements and are essentially based on trade and investment. This phenomenon has brought new dimension to global business environment by changing the landscape in which firms from emerging markets operate in another emerging market. In the light of this, this study conceptualizes how trade agreements provisions influence choice of foreign market entry mode of resource seeking Chinese Multinational Enterprises operating in Nigeria. Model that integrates Dunning's OLI theory, Resources Dependency Theory, and Institution theory was developed to investigate eight research issues.

Keywords: Bilateral Trade Agreement, Chinese Resources Seeking Firms, Mode Of Entry, Oli Theory

I. INTRODUCTION

Nigeria and China have signed a number of bilateral trade and investment agreements. It is important to know how Nigeria –China relation pattern merges trade and investment to resolve issues of ownership and location disadvantages. This study fills this gap by developing a model to investigate bilateral trade agreements influences on Chinese firm's specific advantages and location advantages in Nigeria. The joint effects of ownership advantages (firm's specific advantage) and location advantages are examined to determine the Choice of foreign entry mode of Chinese MNEs in Nigeria. This study bridges the gap and supports the need for theory building and empirical efforts within the global marketing research community

The model developed in this study makes a contribution to theory for the study of market entry modes of MNEs from developing countries entering another developing country. In this case, Chinese resources seeking multinational firms entering Nigeria. Elements of Dunning's OLI theory, Resources Dependency Theory, and Institution theory extended for the purpose for the theory development process. It also provides important information to assist state policy actors in their development of

trade agreements between China and Nigeria. Implications for firms and their involvement in developing countries and with framework where trade agreements exist are also provided.

II. RESEARCH BACKGROUND

The rise of China as an economic and political power has stimulated research interest into FDI in China and the FDI activities of Chinese multinational enterprises. For example, Pan and Tse (2000) recognized the important drivers of over 10,000 Chinese firm's foreign direct investments. Also, Jiang (2005) considered open policy of government and other location variables as important entry factors for foreign firm investment in China (March, 2004). Rajan and Pargarkar (2000) applied Dunning's eclectic paradigm to identify that strategic motivation is a critical factor in deciding the foreign entry mode decision of Chinese firms.

Choice of entry mode is therefore a critical strategic decision for firms wishing to operate in emerging markets. It is also a significant decision for multinational enterprises from emerging markets pursuing cross border expansion in emerging or developing markets. Apart from the fact that there is a paucity of empirical study on the effects of bilateral trade agreements on choice of market entry mode, there has also been limited research focusing on the activities of resources seeking firms in developing countries. These are important gaps in empirical literature. In particular, the issue of how 'State sponsored' resources seeking multinational enterprises from emerging markets in general, and China in particular, behave across their borders demands more attention (Yamakawa, Peng and Deeds, 2008, Xu, Hu and Fan, (2011); Peng, 2012).

Drawing from above discussion, three main theories form the basis of the model development for this research work. Dunning's OLI Theory is the main theory from what the current framework is developed. The other two theories are the Institution Based View (IBV), and Resource Dependency Theory (RDT) with a branch of Resource Based View. The theories are widely used in business and marketing literature to explain the cross border activities in term of choice of location of multinationals firms. Unlike other theories on multinationals activities, according to Dunning (2006) and Demirbag, Tatoglu and Glaister, (2009), OLI paradigm is based on the systematic relationship between the determinants of foreign direct investment flows of ownership, location and internalization and the stage and structure of economic development of a country. While a new generation of researchers (Peng, 2012; Meyer, 2009) suggested that institutions are much more than a background condition in emerging markets.

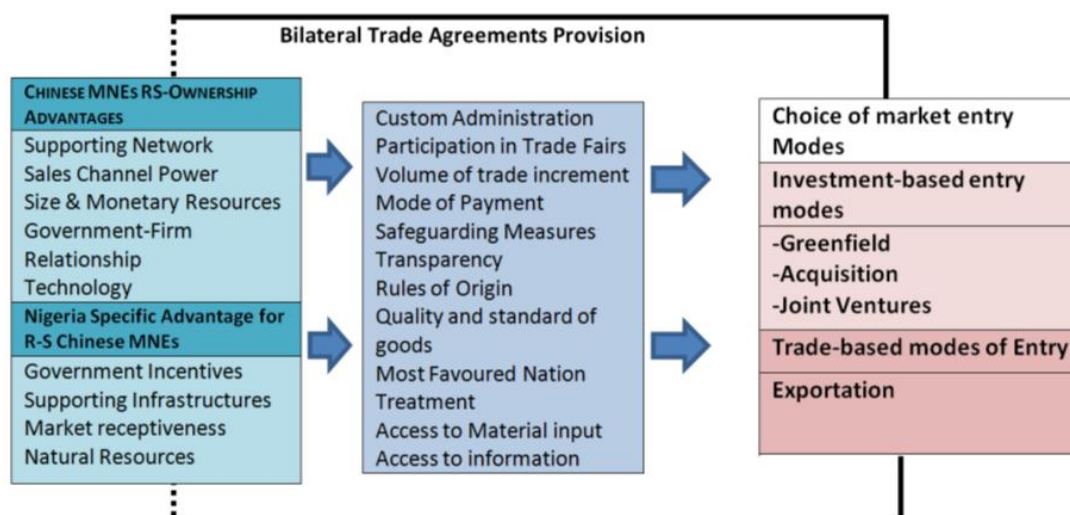
The differences in the institutions framework between the advanced markets and emerging markets call for new entry mode models. Therefore, as the reader will become aware, the incorporation of the three theories is essential for this model development. Indeed, the use of institution theories and

Dunning's OLI framework are complementary in recent research works by Dunning, (2006) and Demirbag, et. al. (2009). It is also in response to the work of Guisinger, (2001) and Demirbag, et. al., (2009) who suggested that institution variables such as country legal and regulatory framework have been relatively unexplored. Therefore, this model is assembled to study Nigeria-China bilateral trade agreements provisions and their influence on resources seeking Chinese MNEs Ownership advantages and Nigeria location specific advantages and the resulting choice of entry mode of Chinese resources seeking MNEs.

III. FRAMEWORK FOR RESOURCES SEEKING CHINESE FIRM'S CHOICE OF MARKET MODE OF ENTRY

The focus of this conceptual paper is to investigate how bilateral trade agreements (BTA) provisions between China and Nigeria influence market entry mode choice of resource seeking Chinese firms operating in Nigeria. In this present research, we propose a framework (Figure1) for understanding the interactions among institutions, resources and OLI variables, for the purpose of studying the research problem. When combined, institution and resources variables on one hand help to identify BTA provisions that facilitate and direct interactions between firms and markets, in this case Chinese firms operating in Nigeria. The OLI variables are in right and left boxes on Figure 1 below. The box on the right accommodates the O and L variables while the right box brought together the L variables in OLI theory. The BTA provisions, the middle box are institution and resources dependency theory variables. The connections among the elements that underpin the study are discussed next

Figure 1



Source: Dunning, 1977, 1988...2013; Agarwal and Ramaswami, 1992; Ahuja, 2000; Eden, Thomas and Olibe, 2003; Stoian and Filippaios, 2008; Meyer, Estrin, Bhaumik, and Peng 2000, 2009, 2012; Davis and Cobb, 2009; Crotti, Cavoli and Wilson, 2010; Demirbag, Tatoglu and Glaister, 2009; Obiwuru, Oluwalaiye and Okwu, 2011;.....

The concepts of institution based views of global business and resources dependency theory are combined to complement John Dunning OLI theory to arrive at the development of the model. The model provides the framework to assemble the elements that underpin the study of how BTAs provisions influence choice of market entry of resources seeking Chinese MNEs operating in Nigeria. Expanding OLI theory by incorporating institution and resources based theories is in accordance with Dunning's propositions (Dunning, 2006) that the institution determinants can also be firm as well as location specific. Examining the influence of institution variables in the realm of BTA provisions is also in tune with Dunning's propositions because it is described as another form of ownership advantages build by a firm to gradually use to interact with their home and host institution environment (Stoian and Filippaios, 2008). BTA provisions that are institution-constraining devices govern the relationship between the firms and the country to minimize uncertainty and dependence as well as maximize resources autonomy for the firms in the host country (Davis and Cobb, 2009).

Taking the discussion from this point of view, Meyer, et. al., (2009) considered the interaction of institution based view of global business and resources dependency theory to determine selection of entry modes into emerging markets. They combined these two theories that provide theoretical pillars to develop this model. The situation becomes complementary when BTA provisions which are institutional factors directly or indirectly combined with a firm's and a country factors to influence management decision of a firm on choice of market entry mode. Also, the combinations of a firm's (ownership advantages) and a country's (location advantages) factors were found by Agarwal, et. al.,(1992) and Meyer et al.,(2009) as necessary requirements that guide firms to select an appropriate market entry mode into a foreign markets. The reason is that strong ownership advantages gain additional rent on location advantage and vice versa, and influence mode of entry into foreign markets (Eden, Thomas, and Olibe, 2003)

The framework in figure1 is reassembled to include five resources seeking Chinese firms' advantages (O) and four Nigeria location specific advantages (L), and the relevant BTA provisions for firms to operate in Nigeria. The O and L factors navigate and sieve through the BTA provisions to determine choice of market entry mode decision (L) of resources seeking Chinese firms in Nigeria. The five constructs of resources seeking Chinese firms' advantages and four Nigeria specific location advantages are selected using Dunning's work as a guide. The eleven BTA provisions identified in the model/framework are legal and regulatory institution variables associated with the two concepts of institution base view and resources dependency theory (Meyer, et al. 2009). They are brought together to consider the influence BTA provisions on firm's and country's specific factors in determination of foreign firms level of involvement to access local resources.

IV. RELATIONSHIP BETWEEN BTA PROVISIONS AND RESOURCES SEEKING CHINESE FIRM'S OWNERSHIP ADVANTAGES

As identified earlier the Chinese firm's Ownership advantages are different from most of firms from advanced countries. What Chinese companies lack in terms of established brand, experience, know-how capabilities are substituted with the following factors. These include supporting network, sale channel power, size and monetary resources, government relationship and Chinese technology (Iwaloye, 2014). Ownership advantages are measure of risk inherent in the products, services and process possessed by the firm. These Ownership specific factors affect directly the perception of the need to control the international operation (Brouther et al. 1996). According to these authors, management of firms with tacit firm's specific factors will be more likely to choose high degree of entry modes (investment-based modes). Management will like to control its specific assets. This research explores the influences that BTA provisions have on four resources seeking Ownership advantages listed above.

Also, from earlier discussion, BTA provisions are institutional variables. How do they influence the firm's Ownership advantages of Chinese firms at market level The first primary step to know the level of influence of BTA provisions is to determine how these institutional variables reduce the cost and perceived risk. When these variables are unable to reduce the risk associated with internalizing firm's specific factors, the firm may not commit its resources and invariably choose a lower degree of entry mode. In like manner, when both provisions and firm's Ownership advantages possess high tendency to limit the perceived risk, the firm is likely to embrace high degree of entry mode.

BTA provisions are institutional arrangements that aid trade and investment relationship between China and Nigeria. The provisions perform two important functions. It helps the government to achieve macro level marketing activities like what firm does at micro level. Also, it influences firm's ownership and location advantages to achieve micro level objectives of the firm. For example, institutional arrangement as in the case of BTA provision is a strategic tool to achieve firm's objectives of internalization. These provisions influence firm's ownership advantages to support the voluntary exchange of what underpinning an effective market mechanism. Provision such as *access to natural resources* on availability of resources possesses economic and strategic reasons for resources seeking Chinese firm to internalize its ownership advantages. Also, preferential treatment in the form of most favoured nation treatment can go a long way to assist firm in its cross border activities to get favour and attract consideration in policy formulation. *Access to information* BTA provision on the other hand embraces the culture of openness and accountability in every business transaction. A good example is a situation where the firm does not need to spend more resources searching for information about business partner.

The *administration of customs* duties is another major provision. It is a vital tool which assists government in the allocation of investment incentives to representatives of parties involved in bilateral trade agreements. Besides custom administration, there is a BTA provision to increase volume of trade between each other. Other bilateral trade agreements provisions are mode of payment and safeguarding measures provisions to secure assets and properties. From these few indications, BTA provisions are measures capable of reducing costs of engaging production and marketing activities in foreign markets (Sharma, et. al. (2004). When institutional framework of BTAs strengthens a firm's specific factors, it possesses the tendency to lower the cost of doing business in the market. In addition, it reduces perceived risk and increases the likelihood of firms committing resources in such markets also too. Also, MNEs prefer high degree of entry mode (Wholly Owned) when there are positive relationships between host and home countries (Demirbag, McGuinness, and Altay, (2010). On the other hand, BTA provisions may influence Ownership advantages indirectly. We consider a situation in which BTA provision are unable to ensure effective use of firm's Ownership advantages to support the voluntary exchange underpinning an effective market mechanism. For example, BTA provisions such as *custom administration* may be undermined by corrupt practices of the officials and preferential treatment to local firms. Also, the realization of trade volume increment advantage to firms from the involving countries may be hindered by legal restrictions emanating from host country. All these increase the costs and perceive risks associated with dealing within weak institutions (Meyer, et. al. 2009). At this junction, it is imperative to briefly examine each firm's Ownership advantages as identified in the model to generate the research issues.

V. RELATIONSHIP BETWEEN BTA PROVISIONS AND NIGERIA LOCATION ADVANTAGES

Location advantages are the measures of risk perceived in the marketplace which may be brought about by institution factors such as legal and political dimensions in the country. Therefore, market conditions due to institutional factors affect the commitment of resources by management of MNEs firms. A location with high location advantages make firms willing to commit resources and likely to enter with high degree of entry mode than a market where location advantage is low (Meyer, et al. 2009). To understand these two combinations of high location advantages and high degree of entry mode, we need to integrate both formal and informal institution and resources as integral part of country's specific advantage (Dunning et. al., 2008). In this case, BTA provisions, which are institutional factors, are able to influence a country's location advantages to create favourable condition for internalization of Ownership advantages of a firm.

Resources seeking MNEs in emerging economies need host market favourable institutions and country specific factors that will favour firms to internalize their ownership advantages. The availability of supporting infrastructures and good government policies in a politically stable environment is important to firms that are resources seekers these factors provide access to acquire the resources. When the BTA provisions support location specific variables, and access to them, they make the market to be highly attractive to foreign investors. For example, custom administration BTA provision can reduce cost of mining operations of raw materials by foreign resource seeking firms. In this situation, MNEs would probably use contracts to arrange most transactions and select high degree of entry mode (Meyer, et al. 2009).

On the other hand, when institution variables in the realm of BTA provisions are not influencing the location factors, MNEs may not be able to rely on its various ownership factors to access their resources. For example, High degree of entry mode may not be the best option if financial market is inefficient, legal framework ineffective and infrastructural facilities are not available. Where this is the case, foreign MNEs may prefer low level of control in order to minimize risk. In this situation, the foreign firm in need of local resources will form partnerships with local firms; the tendency of contributing resources together and sharing control will be an option (Meyer, et. al. 2009). In this present research, there are four specific advantages that distinguish Nigeria location from another country because they enhance the use of ownership advantages to make it attractive investment destination for resources seeking Chinese firms. Some of these location factors specific to Nigeria include availability of natural, supporting infrastructures, government incentives and market receptiveness. The four location specific attributes are relevant for this analysis. The influence of BTA provisions on each of these variables will help us to generate research issues needed to investigate the research problem. The next session provide us the opportunity to develop the eight research issues designed to investigate how bilateral trade agreements provisions between Nigeria and China influence the choice of market entry mode of resource seeking Chinese firms operations in Nigeria.

VI. DEVELOPMENT OF RESEARCH ISSUES

The development of research issues for this study commenced with the formulation of the framework and the establishment of the relationship between ownership advantages of resources seeking Chinese firms, Nigeria location advantages for resources seeking Chinese firms and the influence of BTAs provisions. This provides the bases for the generation of eight research issues formed to explore the influence of BTAs provisions on choice of market entry of resources seeking Chinese firms operation in Nigeria. The four research issues that guide the development of four research issues related to ownership advantages of Chinese firms operating in Nigeria were formulated.

A. Development of Research Issues on BTA Provisions Influences on Resources Seeking Chinese Ownership advantages

China and Nigeria BTA provisions influence firm's Ownership advantages to create an added value that can give Chinese firms a competitive edge. For example, BTA provision such as *access to natural resources* influences resources seeking Chinese firm's core competence of government relationship, supporting network, technology and size and monetary resources for sustainability and profitability. We now establish the relationship between BTA provisions and ownership advantages to form research issues guiding in the exploration into how BTA provisions influence choice of market entry mode of resources seeking Chinese MNEs in Nigeria.

Chinese Government Relationship

Chinese government plays positive role by supporting their MNEs in series of preferential arrangements at domestic and international levels (Rui and Yip 2008; Buckley, Peter, Adam, Hui, Liu, and Hinrich, 2008 and Liu, and Scott-Kannel, 2011). The support is spread across many areas such as provision of financial support, management autonomy, profit retention, low-interest financing, favourable use of home currency for exchange and reduced taxation (Wu, 2005). Access to huge investment funds from the government make resources seeking Chinese firms to be flexible in economic related matters. The influence of BTA may play a major role in the provision of financial supports to resources seeking Chinese firms in Nigeria. In the first instance, *access to natural resources* BTA provision which is directly related to *volume of trade increment* BTA provisions is directly related to government relationship factor of Chinese MNEs. The relationship at government to government level (G2G) encourages the firms to increase production and marketing activities (Sharma, et. Al. 2004) in Nigeria. For example, Chinese government financially supports resources seeking firms from China to fulfill the objective to sources for material inputs in emerging markets in order to provide for the growing manufacturing sector in China. (Gilroy, Gries, and Naude, 2005; Alden and Davies, 2006; Broadman, 2007 and Luo and Han, 2010)

To enhance resources seeking Chinese firms achieving the goal of sourcing for material input necessary for growth in China. Chinese government provided financial support (Morck and Zhao, 2008, pre-arranged preferential treatment (Chen, Lee and Li, 2003) and also less interfering in resources seeking Chinese firm's decision making exercise (Schüler-Zhou, 2012). McDonald, Warhurst, and Allen, (2008) provided the evidence that increasing operational **decision-making autonomy** is associated with enhanced performance. Also, Takeuchi, Shay, and Li, (2008) supported this empirical finding when they found that decision autonomy of resources seeking Chinese firms is significantly and positively related to foreign managers adjustment to institutional pressure. The

freedom assisted Chinese firm to use the similar experience from China to reduce delay in strategic decision making in Nigeria (Warhurst, and Allen, 2008).

Chinese government involvement in their firms' activities in Nigeria would be highly influenced by BTA provision such as access to natural resources and volume of trade increment. There is high tendency that Chinese firm will take the advantage of raw materials available in Nigeria, coupled with the provision to increase the volume of trade between the two countries. The provision of financial support to resources seeking Chinese firms is to support unhindered access to raw materials (Li, et al. 2003) and export of raw material from Nigeria to China. The support also helps to match importation of goods and services from China to exportation of raw resources from Nigeria in order to avoid trade deficit. Increasing trade involves Chinese MNEs to conduct activities in the host country such as outright foreign investment or exportation of raw materials. Therefore, we may explore how Chinese government-firm relationship is influenced by BTA provisions to determine firm's choice of entry modes, and leads us to the development of the first research issue:

Research issue 1: *How do BTA provisions influence home government relationship factor in the choice of resources seeking Chinese firm's market entry mode into Nigeria.*

Chinese Firm's Supporting Networks

Chinese firms are widely known to engage in extensive networking in search of opportunities and performance (Peng and Luo, 2000 and Mathew 2006). Supporting networks as a factor of Chinese MNEs has direct relationship with sales channel power because Chinese firms earn support through the linking of individuals and institutions in a knowledge and experience sharing type of framework (Ajayi, 2006). The relationship within the network and actors in distribution channel is positively linked to the concept of guanxi (Dickson 1996; Shapiro, et. al. 2009; Liu and Scott-Kannel, 2011). They do most of the distribution within their network and the source of their power is based on the value for respective relationship with members within the network in China. Therefore, the two constructs in figure 4.1 are combined together because they are interrelated because firms with these advantages may be influenced by a number of similar BTA provisions.

Access to natural resources and volume of trade increment BTA provisions help to increase trade and investment activities in both countries. There a good number of BTA provisions that serve as catalyst to the increment of trade and investment volumes. Transparency BTA provision, mode of payment, and safeguarding measures are BTA provisions with tendency to reduce risk associated with firm internalization. BTA provisions such as information sharing and participation in international trade fair have the ability to reduce the liability of foreignness. For example, relevant information gathered during the fair and business fora help Chinese firms to favourably dispose in making use of the

opportunities provided by sales channel power and support from different Chinese networks in Nigeria and China.

Deviating from above scenario, supporting networks that always benefit from preferential treatments from their home country may be forced to adhere to rules and regulations in the host country. Enforcement of legal obligations and conformity with state rules and regulations such as quality and standard of goods, for example, will invariably affect the internalization of these factors. Also, rules of origin provision in exportation and importation of goods and services may indirectly influence internalization decision of resources seeking Chinese firms in Nigeria. For example, rule of origin allow made in China mining equipment in Nigeria. The influence of BTA provision is fundamental consideration to the determination of Chinese firm's entry mode in Nigeria. It is important to investigate how Chinese supporting network and sales power channel are further influence by BTA provisions. The above issues lead us to the development of the second research issue:

Research Issue 2: *How do BTA provisions influence supporting networks factors of resources seeking Chinese firm's choice of market entry mode into Nigeria?*

Technology

Technology is a specific factor to Chinese MNEs in emerging markets (Gao, Woetzel and Wu (2003). Technological products and their spare parts from China are known to be cheap and available compare to those from advanced countries (Wai-sum and Chan, 1997; Giovannetti and Sanfilippo, 2009; Shi, 2010 and Rangasamy and Swanepoel 2011). In the same vein, emerging countries preference for giving tax holiday to investing firms may also provide opportunities for Chinese firms to bring their technology for production purposes to Nigeria (Nasrin, Baskaran, and Muchie, (2010).

On the other hand, Nigerian business and individual consumers may perceive risk in using Chinese brands of technology, like in US, for example, where the 19.1% of Chinese made products are regarded as substandard (Kiley, 2007). Such a situation could prevent Chinese firms to adopt investment modes of entry (Shige, Beamish and Zhao, 2004) no matter the level of influence gained from most favoured nation treatment and favourable custom preferential treatments. Chinese technology may not be seen as the best option to compete in the foreign market with competitors (Von Zedtwitz, Ikeda, Li, Carpenter and Hämäläinen, 2007), because BTA provisions may not be able to influence reduction of risk or increase economic gains. The quality of Chinese technology does not ensure long term stability of acquiring required natural resources in Nigeria. Shige, Beamish and Zhao, (2004) indicated that the management of any firm facing this type of conditions where its technology is substandard will likely select low degree of control of its resources in another country and embrace less commitment entry modes strategy (Kiley, 2007 and Grande, et. al. 2011). Also, firms with sophisticated **technologies** prefer high degree of mode entry (Javorcik and Saggi, 2010). We

would like to investigate if the influences of BTA provisions such as *volume of trade increment, custom administration and most favor nation treatment* on Chinese technologies may reduce or increase their commitment in internalization of their specific advantages in emerging markets. The above discussions lead to the development of third research issue.

Research Issue 3: *How do the influences of BTA provisions on technology support resources seeking Chinese firm's choice of market entry mode into Nigeria?*

Chinese MNEs Size and Monetary Resources

It has been noted that large firms with huge resources such as skilled labour and abundant monetary resources, together with suitable investment opportunities have greater tendency to move abroad (Dunning, 1988). From the resource-based theory viewpoint, Ahuja, (2000) found that firm with enormous size is a reflection of availability of sufficient resources and therefore lowers the inducement to enter into alliances. Larger firms with sufficient resources also prefer to fully own and control their investment than JV (Xie, (2013). The enormous monetary resources at the disposal of Chinese firms are being used to achieve wholly owned investment in emerging markets (Cheng and Lo, 2004, Morck and Zhao, 2008). For example, within Nigeria, *mode of payment* provision encourages parties to settle business transaction using their local currency, which is in direct support of Chinese government internalization of Remimbi (Yuan) (Wu, 2005) also¹. The problem associated with conversion to another accepted international currency such as USD, pound sterling and Euro will therefore be eliminated.

Also, the security of Chinese MNEs assets in Nigeria is guaranteed to some extent based on the *safeguarding measures* BTA provision put in place by the bilateral trade agreement between Nigeria and China. The provision allows the firm to enjoy 100% profit repatriation. It also provides for host government inability to create any fiat law in a bid to take over their firm. The firm will make use of its specific factors when the influences of these BTA provisions give resources seeking Chinese firms a competitive edge in term of cost advantage and economic rent. The BTA provision may further influence Chinese government to financially support Chinese firm's investment plan once it is in line to achieve the economic objectives of sourcing for material input in Nigeria. In this regards and since resources seeking Chinese firm's specific factors will enjoy cost advantages in economic terms in Nigeria, there is tendency that Chinese MNEs will favour investment modes choice of entry. The discussion leads in to the next research issue on the influence of BTA provision on resources seeking Chinese firm's size and monetary resources.

Research Issue 4: *How do BTA provisions influence the use of resources seeking Chinese firm's size and monetary resources in its choice of market entry mode into Nigeria?*

¹ The Nigeria Central Bank Governor, LamidoSanusi, today, Tuesday 6th September 2011, announced plans to invest between 5-10% of our foreign exchange reserves in China's currency – the Renminbi (RMB) or Yuan

A. Development of Research Issues on BTA Provisions Influences on Nigeria Specific Advantages for Chinese Resources seeking MNEs

There are certain specific location advantages in Nigeria that make it an attractive investment destination for resources seeking Chinese firms. They include natural resources, supporting infrastructures, government incentives and market receptiveness. We establish the relationship between BTA provisions and Nigeria location specific advantages to form research issues to guide the study on how BTA provisions influence choice of market entry mode of resources seeking Chinese firms in Nigeria.

Government Incentives

Previous studies have shown that government initiatives in term of incentives, assistance in registration, tax reduction, grants, and allowances in cost of investment, and banking, tax and tariff reforms can play a vital role in attracting FDI (Nasrin, Baskaran, and Muchie, (2010). The overarching incentives are also packaged to help revive the economy, accelerate growth and development and reduce poverty (Osbonebo (2011). It has also been developed to assist growth and development of local industries through the stimulation of domestic investment and to attract inflow of foreign investments (Larsson, and Venkatesh, (2010) and Kaggwa, Steyn, and Pouris, (2012)

According to Braioniac, (2010) The Federal Government of Nigeria develop many incentive packages to stimulate expansion of domestic production capacity and to shield both new and existing investments from unfair competition. Gilroy et al., (2005) noted that measures such as tax break and trade incentives, like duty free for export of material input are given to reduce cost and making investment profitable. Other categories of incentives adopted by the Nigerian government to attract and make the country to benefit from FDI are financial incentives, fiscal incentives and other general incentives (Ogunkola and Jerome, 2006). The present government in its *fiscal policy offers incentives to extractors of natural resources* to attract investors in extractive industries (Oshonebo, 2011). While general incentives provided by government include the subsidization of infrastructure and services market preference and regulatory concession to reduce cost of doing business in Nigeria solid and mineral sector (Ogunkola and Jerome, 2006 and Cheney, 2011).

Location advantages available to Chinese MNEs in Nigeria are also influenced by BTA provisions. Most favoured nation treatment, rule of origin¹, and custom administration measures are directly influence by government incentives. For instance, the rule of origin provision support that products meant for trades should originate from each of the countries; either grown or manufactured in one or both of the BTA countries. The Nigerian Custom Service administers and manages incentives for the government as directed by the Federal Executive members headed by the President. Nigeria Custom

¹ Rule of Origin (RoO) is part of bilateral trade agreements provisions which determine what products from which countries can benefit from the incentives such as tariff concession and other preference.

Services is directly involved in carry out destination inspection which is emphasizes by the *rule of origin* BTA provision reference to cover the last two sentences. In the same manner, firms from these two countries enjoy preferential treatment as stipulated in the BTA provision. For example, The two countries grant each other the most favoured nation's treatment (MFN) or status in all matters relating to customs duties and foreign trade formalities in connection with importation and/or exportation of goods and services products. The influences of BTA on incentives provided by host and home countries include measures to reduce costs and enhance the flow of goods, services, and capital. They further enhance location advantages and may facilitate Chinese firms adopting higher or lower entry modes. In this regards, it is pertinent to see if BTA provisions influence government incentives in the determination of Chines MNEs internalization strategy in Nigeria. This revelation leads to the development of fifth research issue.

Research Issue 5: *How do BTA provisions influence home government incentives to facilitate resources seeking Chinese firm's internalization decision in Nigeria?*

Supporting Infrastructures

Recent studies have shown that availability of infrastructures such as power, water, transportation and technology (particularly, in the realm of telecommunications and mobile phones services) are significant FDI determinants in developing countries (Dunning, 1993; Kirkpatrick et al. 2006; Nwankwo, 2006; Lydon, and Williams, 2005; and Luiz, et. al., 2001). Dunning (2002) specifically listed infrastructures services such as transportation and telecommunications as needed services to sustain resources seeking firms day to day operations in resource endowed countries. While Khadaroo and Seetanah, (2010) also agreed that improved infrastructure facilities help to aid the investment climate and also in determining the attractiveness of the country towards FDI.

Measures in the BTA provision relating to the use, access and supply of transportation and telecommunication facilities can provide added advantages to the location and the firm's ability to use its specific advantages (Dunning, 1993, 2002; Lydon, and Williams, 2005; Demirbag, Tatoglu, and Glaister, 2009). Availability of supporting infrastructures or actual generation of these important infrastructures will reduce the cost of MNEs operations in Nigeria. These supporting infrastructures provide the Chinese firms unhindered access to the natural resources in Nigeria due to access to natural resources BTA provisions. The motivation from provision of supporting infrastructures enhances the attractiveness of Nigeria location and as well increase the possibility of resources seeking Chinese firm's investment in Nigeria. In this regard, it is important to investigate the influences of BTA provisions such as access to natural resources support supporting infrastructures in Nigeria to facilitate Chinese mode of entry in Nigeria. The above issues lead us to the development of the sixth research issue:

Research Issue 6: *How do BTA provisions influence supporting infrastructures to assist resources seeking Chinese firms in choice of mode of entry into Nigeria?*

Market Receptiveness

Market's or consumers' receptiveness to foreign products specific to a country of origin for emerging markets have not been considered in traditional frameworks for market selection Sakarya, Eckman, Hyllegard, (2007). Bodur, (1994) considered customers' receptiveness among the indicators of the business environment affecting export performance and found that consumer's receptiveness is an important determinant export activities in foreign markets. On the other hand, Cavusgil, (1997) used trade figures to measure market receptivity and does not provide micro level input on customers. Sakarya, et. al., (2007) assessed the potentials for market selection in emerging markets and found that there positive customer receptiveness is an advantage for foreign products and business in emerging markets. Bodur, (1994) and Cavusgil's (1997) studies were partially involved in expanding the two concepts of market's and consumer's receptiveness. However, they were unable to incorporate important institutional components into their studies such as pressure from competitors, competitiveness of the product, attitude toward foreign products and level of market positioning and acceptance. Therefore, in this present research,

Sakarya, et. al., (2007) idea of customers' receptiveness is embraced as similar to market receptiveness for this study because the researchers deviated from reliance on aggregate, general country indicators of go-no-go traditional method to incorporated country's heterogeneity through the assessment of the competitive strength of the specific industry. In this present study, Nigerian firms' acceptance of Chinese companies and general perceptions of Chinese products with respect to competitor pressures are adapted to measure market or customers' receptiveness.

Foreign direct investment and market receptiveness also are known to be deeply interconnected because uncertainty associated with unstable market reduces inflow of foreign direct investments (Sakarya, Eckman and Hyllegard, 2007). MNEs invest in a location where the market is available and stable (Agarwal and Rarnaswami, 1992; Root, 1994; and Russow and Okoroafo, 1996). Nigeria with a population of over 160 million as well as its influence in West African regional markets (MarketingWorld, 2010) provides advantages that support foreign investment. Nigeria market is also highly receptiveness to Chinese products, and the competition from both local and foreign brands is very low (Mthembu-Salter, 2009). Moreover, the middle class is growing (ADB, 2011 and Obuh, 2012) and there is further ability to accept the Chinese's products. Chinese products in Nigeria are increasingly popular because of the following reasons:

- Most of the imported Chinese products are relatively less expensive compared to few Nigeria made products and those from other countries.

- Low cost maintaining of Chinese technology is very low because of availability of spare parts at minimal cost.
- Consumer spending in Nigeria is growing due to emergence of educated and wealthy middle class.
- There are growing numbers of Chinese and Nigerian business men importing products from China
- Chinese product has helped to alleviate poverty and increase standard of living in Nigeria.

Marketing and political stability also directly influence each other because traditional market analysis relies purely on macroeconomic and political factors (Sakarya, Eckman and Hyllegard, 2007). Marketing receptiveness is possible due to Nigeria transiting from unstable political situation to a moderately stronger political environment. There is stability in the political arena which also herald stability in market place (Musonera, 2008). Nigeria has been able to stabilize politically recently due to its ability to successfully transfer power among three presidents using constitutional means (Holiday, 2013). This has also helped to underpin her growth because these three presidents came to power through the same political party.¹ Other factors that have made Nigeria to be market and political stable are higher level of literacy and rich talent among the youths. Others are availability of natural resources (Asiedu, 2006, Broadman, 2007 and TradeInvest, 2010). and implementation of reform programs which is positively related to sustainable economic development² (Okonjo-Iweala and Osafo-Kwaako, 2007 and McKern, et al., 2010) Nigeria has significantly improved in rule of law, transparency of rule of law and corruption categories (Ige and Lawal, 2005). Other notable areas of modest improvement are human rights, civil rights, judiciary, safety and security.

Participation in international trade fair has inevitably influenced location factors/advantages of Nigeria because it provided resources seeking Chinese first hand privilege to observe the situation in Nigeria and to identify their needs. The low pressure from competing brands in Nigeria and the establishment of China town in Lagos, Kano and Port Harcourt are contributing factors that have enhanced Nigeria location. Also, preferential treatments accord to Chinese MNEs and their products in Nigeria due to most favoured nation BTA provision and influence acceptance of Chinese products. Nigerian market may be dominated by Chinese products because of the agreement to increase the volume of trade between the two countries. Nigeria raw materials such as cassava, crude oil and gas are high demand by Chinese firms. In the same manner, Chinese machineries clothing, automobiles and mobile phones are demanded in Nigeria (Omeh, 2013). Combining these factors with market attitudes toward Chinese goods and services in Nigeria, it is important to investigate the influence of BTA provisions in choice of Chinese firms' entry mode into Nigeria. The discussion leads to development of the seventh research issue.

¹ President Olusegun Obasanjo, President Umaru Yar'dua and President Ebewe Goodluck Jonathan emerged through the platform of People's Democratic Party of Nigeria from 1997 to date

² Mo Ibrahim index 2008.

Research Issue 7: *How do BTA provisions influence market receptiveness of resources seeking Chinese firms and its choice of entry mode in Nigeria?*

Natural Resources

One of the keys to take the full advantages of foreign direct investment in developing countries is the availability of natural resources. The common perception is that FDI is largely driven by natural resources in Africa (Asiedu, 2006). Availability and access to natural resources is an important determinant of Chinese MNEs investment in Nigeria (Dunning, 2002 and Kinishita, et. al. 2002). The benefits of access to natural resources are of great importance to both Nigeria and Chinese MNEs. This is a platform for trade volume increment between the two countries. The exportation of natural resources as input material for industries in China contributes to gross domestic products and economic growth of the host country – Nigeria (Stefanovic, 2008). In the same manner, Chinese MNEs buy low cost raw materials from Nigeria and also return finished products to Nigeria in order to benefit from its large market.

BTA measures such as most favoured nations and access to natural resources provide the legal backing for Chinese MNEs to invest in Nigeria. Access to abundant and relatively untapped natural resources in Nigeria (Broadman, 2007) such as natural gas, petroleum, iron ore, tin, coal, limestone, zinc, lead, columbite, niobium and arable land (Asiedu, 2006) enhance the location and facilitate the use of resources seeking Chinese firms ownership advantages in Nigeria. Other BTAs provisions that will enhance Nigeria location are method of payment, rule of origin, custom administration, safeguarding measures and transparency. It is necessary at this point to investigate how these provisions influence the behavior of Chinese investments in Nigeria. This leads to the development of research issue eight.

Research Issue 8: *How do BTA provisions influence availability and access to natural resources to facilitate resources seeking Chinese firm's mode of entry into Nigeria?*

VII. CONCLUDING REMARKS

We developed a model and 8 research issues to guide the study into the research problem to investigate how bilateral trade agreements provisions between Nigeria and China influence the choice of market entry mode of resource seeking Chinese firms operating in Nigeria. The eclectic paradigm by John Dunning, institution-based view and resources dependency theory are the three theories used to develop resources seeking firm's choice of market entry model for a developing or emerging market, in this case Nigeria. The model is convenient utilized to assemble eleven institutions and resources variables in the form of BTA Provisions (legal and regulatory factors), and five resource seeking Chinese firm's ownership advantages and four Nigerian location specific advantages for

resources seeking Chinese firms. Finally, eight research issues were developed from the nine constructs of resources seeking Chinese ownership advantages and Nigeria location specific advantages for Chinese resource seeking firms to guide the study.

CONFLICT OF INTEREST

There is no conflict of interest

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CIRCULAR BIOECONOMY: DO WE REALLY NEED ANOTHER CONCEPT?

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ABSTRACT

The Circular Bioeconomy (CB) concept emerged around 2015 and starts becoming a common buzzword mostly within the policy and biosciences groups. According to generally accepted views, it is a combination of the circular economy and bioeconomy concepts. The rather uncritical way of using the CB notion raises a number of issues on the topic, starting from the essential question if we really need another new concept, taking into consideration the already confusing landscape of bio-concepts.

This paper purports to answer this question by exploring the popularity, robustness and evolution of the term and the ways it is used. An extensive literature review was conducted using the Scholar and Scopus databases for that purpose. It appears that though CB is not yet an established discipline, the current literature recognizes scope for its development. The analysis shows that the existing CB work is international and transdisciplinary but it is mainly done on the practical and technical level and mostly in Europe. Besides its growing significance, the results highlight the considerable challenge for deeper analysis of the CB concept and construct digging into the theoretical underpinnings and its comprehensive connection to business, organizational and management study research.

It is the first paper to draw on the very concept and phenomenon of the circular bioeconomy evolution and reveal its weaknesses regarding issues of management, economics and entrepreneurship research. Perhaps the major contribution of the paper is that it makes clear that the circular bioeconomy should be treated by scholars as a novel conceptual framework.

Keywords: circular bioeconomy, management, economics, entrepreneurship, social sciences, review, evolution, circular economy, bioeconomy

INTRODUCTION

Circular Bioeconomy (CB) appeared as a term in policy and research work around 2015 as a buzzword rather instead of a structured concept. It was used mostly in order to describe research efforts that

combined bioeconomy issues to principles of circular economy such as the use of existing bio-resources in efficient novel ways. Quite soon it was adapted by policy makers who started talking about the role of the bioeconomy in spurring the circularity of the economy.

In general, the nascent field of the circular bioeconomy (CB) appears to gain in popularity, attracting attention from many sectors. The term itself shows up more and more in the media, academia and the policy cycles and starts forming the strategy of several research centres (e.g. CBIO in Aarhus University). The reasons behind the CB popularity are many; perhaps the most important one is that CB has struck a responsive chord providing answers to multiple grand challenges of our planet and society.

However, the circular bioeconomy seems to be a rhetorical term that is used in rather superficial ways interchangeably with the terms of circular economy and bioeconomy, as it is commonly accepted that the circular economy and the bioeconomy constitute the two sides of the circular bioeconomy. Discussions on their merge under the umbrella called “circular bioeconomy” raise the essential question if we really need another new concept, taking into consideration the already confusing landscape of bio-concepts.

Against this background, this paper tries to answer this question starting with a review of existing CB literature so far, since concepts are often given rise with the aid of statistics. More precisely, a bibliometric analysis of academic publications, reports and working papers was initially engaged to explore the evolution of the concept and its rate of growth since its birth. At a second stage, a deeper look at the ways and fields of evolution and the nature of the construct allows for the discussion of revealed weaknesses and gaps and some suggestions on further research and policy making.

THE BUILDING BLOCKS OF THE CIRCULAR BIOECONOMY

Bioeconomy

The bioeconomy has emerged as a significant alternative that targets “the production of renewable biological resources and the conversion of these resources and waste streams into value added products, such as food, feed, biobased products and bioenergy” EC (2012, p9), promising to meet societal needs in environmentally sustainable manners. The term spread quickly between 2010 and 2013, as a result of actions of various European Union bodies as “the part of the economy which generates growth through development and creates jobs in the process of using and processing bioresources in an environment-friendly manner” (Adamovicz, 2017) or “as the knowledge-based production and utilization of biological resources, innovative biological processes and principles to

sustainably provide goods and services across all economic sectors” (Global Bioeconomy Summit, 2015).

The term has been used to cover a wide variety of products and industrial sectors (and services), such as construction, food, bioplastics and bioenergy as well as R&D, marketing, tourism, water supply and sales becoming a changing concept to fit many purposes and sectors. Due to the number of interconnections embodied, bioeconomy has been developing driven by policy action and relevant strategies and in relation with a number of “bio-concepts” such as sustainability, green economy and ecology.

In general, bioeconomy covers closed-loop recycling strategies, the development of environmental standards for secondary raw materials to increase potential of their use, scientific trends on waste reduction (especially food and water) and similar. According to Bugge et al. (2016) there are three ideal categories of what a bioeconomy constitutes of three categories: (1) one that emphasises the importance of bio-technology research, application and commercialisation; (2) one related to biological raw materials in sectors such as agriculture, marine, forestry, and bioenergy and the establishment of new value chains; (3) one towards bio-ecology and thus, the optimization of the use of energy and nutrients by biodiversity. More specific aspects of the bioeconomy are also the subject of a growing research effort, such as bioenergy, biorefinery, and biotechnologies. Searching “bioeconomy” in the Scopus database in 1st February 2018 yields 1142 papers. Comparing it to Viaggi’s (2016) review (479 papers) indicates the significant growing trend of the issue.

Circular Economy

A circular economy (CE) as defined by the Ellen MacArthur Foundation is “an industrial system that is restorative and regenerative by design, and which aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles”. CE contemplates that, in opposition to take-make-dispose linear pattern of production and consumption, a circular system for achieving net reductions at the organizational supply chain and industrial levels would achieve minimal input and minimal production of system ‘waste’.

The concept dates back to the beginning of industrialization and the 19th century (Boulding, 1966), draws from the ideas of industrial ecology and industrial metabolism of the 1970's and 1980's and becomes popular during the '90s (D’Amato et al., 2017). Today, the CE approach emphasizes product, component and material reuse, remanufacturing, refurbishment, repair, cascading and upgrading as well as the potential of sustainable energy sources using a cradle-to-cradle life cycle approach (Korhonen et al., 2018). According to several reviews (e.g. Merli et al. 2017; Korhonen et al, 2018), the definition of CE is evolving, indicating its undefined boundaries so far. Besides definitions, these

studies review concepts, principles, and conceptual relationships mainly with sustainability and bioeconomy. There are also a plethora of articles with specific attention on several areas such as closed loop value and supply chains, circular business models and circular product design (Geissdoerfer et al., 2017). Empirical work concentrates mainly on cleaner production, environmental impact and waste production along the life cycle of a product.

According to Merli et al. (2017), CE studies follow three main lines of action: a) papers on change of the socio-economic dynamics at macro and administrative level; b) firm-level support in circular processes implementation, and c) at meso-level, discusses on industrial symbiosis. According to the reviews, the majority of CE papers are published in journals in the category of green, sustainable and environmental sciences with the Journal of Cleaner Production to take the lion's share. However, it is commonly accepted that CE conceptualization is still in its infancy and the literature is only emerging. A research in Scopus led to around 1000 results on circular economy with more of the half in 2017.

The Circular Economy (CE) as an approach to combat environmental challenges and promote sustainable development is currently a very popular notion within the policy and business advocacy groups. Such discussions are primarily led by policy makers (e.g. the European Commission) influencing governments and intergovernmental agencies at the local, regional, national, and international level.

The debate on linking the bioeconomy with the CE principles

According to the evolving theoretical and empirical literature on CE and bioeconomy, the former aims to eliminate urban and industrial waste and design products for a cycle of disassembly with the adoption of closing-the-loop production patterns, while the later offers the possibility to produce renewable and biodegradable solutions for societal needs. Therefore, CE is respectively narrower in scope than bioeconomy but bioeconomy alone cannot safeguard sustainability (Birner, 2018).

A first approach towards the linking of the principles of the two emerging systems is tracked in the Global Bioeconomy Summit in 2015, in order to “involve systemic approaches across sectors (i.e. nexus thinking), particularly innovation policy measures that aim at optimizing bioeconomy value networks and minimizing waste and losses” (Bioeconomy Summit 2015, p. 5). Yet, it is only in 2017 that the combination of the two concepts can create synergies (Antikainen et al. 2017). Bioeconomy can support the successful and efficient implementation of the CE principles with its focus on biotechnological innovation taking into account the ‘cascading use’, re-use and recycling of resources (including waste) which can further lead to an interlinkage of different value chains.

METHODS

Things are moving fast on the bioeconomy highway. In just a decade, it appears that bioeconomy and circular economy have attracted increasing attention by researchers and managers and have gained significant political interest. D' Amato et al. (2017) presented a significant study on the diversity between the concepts of Circular Economy, Green Economy and Bioeconomy based on a bibliometric review of almost two thousand scientific articles and coupled with a conceptual analysis. They conclude that both CE and bioeconomy are resource-focused, joined by the common ideal to reconcile environmental and social goals but the achievement of economic growth is rather questionable. On the other hand, according to many researchers and politicians, circular bioeconomy is more than bioeconomy or circular economy alone. According to existing literature there is a need to merge the two systems in a fruitful way and therefore, streamlining the research agenda, examine the nature and conceptualize the circular bioeconomy concept, develop measurement constructs and explore and examine several factors such as its antecedents and consequences at firm-level and in an integrated framework.

However, before attempting to extend our understanding on the nature of CB, it is essential to question if we really need another new concept, taking into consideration the already confusing landscape of bio-concepts. Therefore, the core research question addressed by this article is:

Is there a notable shift to Circular Bioeconomy? How appealing is the CB construct today (in the beginning of 2018)?

In order to trace the academic interest on the circular bioeconomy issue a bibliometric review was conducted to identify all relevant articles. Data were collected from Scholar and Scopus in February 2018. Terms searched were "circular bioeconomy" or "circular bio-economy" in title, abstract or keywords (Scopus) and in full-text (Scholar) in regard of all available sources (books, articles, reviews, reports, conference papers) written in English (generally considered as the international academic language (Genç and Bada, 2010)). No chronological restriction was employed. It is important to stress that, besides peer-reviewed scientific journal articles in English which ensures the quality of the research, the inclusion of other literature was rather imperative since CB is literally in its infancy and actually these studies are the very first to pose core research questions and initiate discussion on the CB concept and strategy

The research on Scopus returned 18 results and on Scholar returned 292 results. After manual control to filter out irrelevant publications, 30 of the Scholar results were found to have the terms in title, abstract or keywords. All Scopus (18) and the 30 Scholar results were manually checked; i.e. the full content was examined. Only 15 of them were found to discuss the concept of circular bioeconomy

(Table 1). The rest of them would have only one reference in the CB term, mostly within a sentence such as “It is a key-enabling technology for a circular bioeconomy’ (Velea et al., 2018), or “To reduce the landfill of waste to safeguard the environment and enabling the shift toward a circular bioeconomy” (Ronda et al., 2017). These records fall mostly into the Process Engineering category. They are all technical scientific studies of specific areas, such as biological sciences and chemical engineering; e.g. the first phrase above belonged to an article on heterotrophic and mixotrophic microalgae cultivation, in *Microalgae-Based Biofuels and Bioproducts* Journal and the second one to a novel methodology to valorise waste in *Process Safety and Environmental Protection* journal. The summary of the publications is given in Tables 1 and 2.

SOURCE	Count
Journal Of Cleaner Production	3
Bioresource Technology	1
Journal Of Environmental Protection And Ecology	1
Current Opinion in Green and Sustainable Chemistry	1
Journal of Security and Sustainability Issues	1
People, Place and Policy	1
Reports	3
Working papers	1
Conference papers	3
TOTAL	15

Table 1: *Publications on CB by journal title*

Publications on CB		Only reference in the CB term (Scholar)	
YEAR	Count	YEAR	Count
2018 (only January)	1	2018 (only January)	42
2017	10	2017	186
2016	4	2016	53
2015	-	2015	8
2014	-	2014	2
TOTAL	15	TOTAL	292

Table 2: *Publications on CB / by year of publication*

According to the database analysis it appears that CB is a brand new and a rapidly growing research topic. Following the Scholar Database, in 2014 the term appeared only once in an article on biomass and biorefineries in Netherlands (Van Dael et al., 2014) and again once in a chapter of Guillou and Matheron (2014), under the rather strange title “Producing Other Goods”. In 2015, the first effort to delineate CD is found in a project report of Leinonen et al. (2015), although the authors did not intend to put extra weight on the issue: “... This development opens a trajectory towards a circular

bioeconomy, based on the design of closed cycles for materials use. In these cycles, nothing is defined as “waste” anymore, but every material is perceived as a raw material for producing something” (p63).

The number of documents increased steeply in 2016-2017; in 2016, 53 articles appear in scholar to entail the CB term; in seven of them the term is found in title, abstract or keywords and devote at least one paragraph in the issue. However, once again most records are technical articles which underline the contribution of the novelty in the CB development. In 2017 the number of records is more than tripled while the results of the first month of 2018 almost equal the total number of 2016 indicating the rapid growth of the research topic.

Most of the journals studied have technical - environmental issues as their main topic. The *Journal of Cleaner Production* has pride of place, with 3 out of the 15 articles to include the term in title, abstract and keywords and with 2 out of the 15 papers to discuss the CB issue. It is followed by 3 papers of conferences on environmental issues and three scientific project reports while all other journals have published one paper each (Table 1). It is quite interesting to note that these 15 papers indicate a transnational and multi-, inter-and transdisciplinary approach. In more detail:

- only three (3) out of the 15 studies are written by only one author affiliated with one University and these are one from England, one from Greece and one from Poland. However all three authors are affiliated with Faculties of different disciplines and namely, the Department of Chemical Engineering, an Institute of Environmental Sciences and a Faculty of Agriculture.
- eight (8) are written by authors affiliated with Universities mainly of the Scandinavian countries and more precisely by a) Schools and Departments that are related to environmental issues such as Industrial Environmental Economics and the Department of Forest Science or Departments of Food and Resource Economics; b) relevant environment Institutes (e.g. the European Forest Institute in Finland, NIBIO in Norway); c) other Centres for Technology and Innovation (e.g. NIFU in Norway, VTT in Finland and CIRCLE in Sweden); d) other Faculties and Departments with a focus on business such as Business Schools, and Departments of Economics and Management.
- three (3) are work of Universities of the former Eastern countries and more precisely Romania, Slovakia-Ukraine and Poland. Once again authors represent a variety of disciplines such as Veterinary Medicine, agriculture, Life and Environmental Sciences, Faculty of Economics and Management, Engineering and even Geography.
- one (1) comes from India. The authors are affiliated with Bioengineering and Environmental Sciences, an Institute of Chemical Technology and the Academy of Scientific and Innovative

Research. The authors have published a significant number of relevant papers on biorefineries and bioeconomy.

- One (1) paper was the combined work of two researchers of a Greek and an English Department of Food and Nutritional Sciences
- In four (4) of the above mentioned “Scandinavian” papers there was a contribution of Universities and Institutes from Australia, Germany, Belgium, Denmark, UK and Spain. The majority were related to environment such as Forest Management and Sustainability, but there was also a Department of Management Engineering.

Interestingly, it appears that CB is mainly a European issue so far. Besides the significant work of Mohan et al. (2016) in India and the Australian contribution in one of the papers, all other research work belongs to Europe. A closer look indicates that Scandinavians and former Eastern countries are the major contributors to this extremely new but emergent stream of research. Furthermore, all 15 results refer to macro-level of analysis, since they all regard policy, production and consumption activities encouraging the CB development at national, European and global level.

A closer study of the content and the aims of the 15 papers leads to five groups:

- a) Four (4) articles discuss the CB issue as their core theme and approach it through the lens of innovation. Interestingly, they are all reports and working papers of specific European research projects on CB. More precisely, Antikainen et al., (2017) discuss the CB concept referring to the efficiency and reuse of bio-based resources, and explore the implications of the circular bioeconomy for the renewal of manufacturing (RECIBI project). The Reime et al’s (2016) report on the CB in Scandinavia is a deliverable of the first work package of the SusValueWaste project on *circular* bioeconomy. The authors are the first to pose significant questions on CB and try to define the concept. The authors map the circular bioeconomy in Sweden, refer to the EU policies and claim that knowledge-based innovation, research and innovation strategies are important to achieve CB in Sweden. Hetemäki et al’s (2017) 50-page report, a work of a multi-European country research teams, focuses on ways to a European CB strategy (FORBIO project). The authors propose potential policies for CB but actually they build on the concepts of circular economy and bioeconomy and mainly investigate CE national and international policies effectiveness. However, they *do* try to answer some core question on CB at strategic level. They argue on the need to link the bioeconomy and circular economy strategies, instead of advancing them separately. Finally, Coenen et al’s (2017) working paper approaches CB through the lens of innovation. According to the authors, CB is an important policy priority in many countries, identified as one of the EU’s Horizon 2020 societal challenges. The development towards a

- circular bioeconomy can be characterised as a system innovation as it requires fundamental changes in both production and consumption (Vinnova project).
- b) Two (2) articles develop specific models for specific areas through the CB lens. Matiuti et al. (2017) put forth a pilot project that will allow the development of the Rural Circular Bioeconomy. Ryabchenko et al (2017) proposed a CB model which provides the approach of agricultural production decision optimization towards sustainability based on a case study in Ukraine.
 - c) Six (6) articles comment on CB discussing specific issues of circular economy or bioeconomy but without any effort to define or delineate the CB concept, taking it for granted. Mohan et al (2016) propose a futuristic biorefinery platform with a holistic biorefinery CB approach. Velendurf (2016) considers biowaste-to-resource innovation as part of the circular bioeconomy. In her study, the bio-based economy was interpreted as the usage of biomass for materials, chemicals, fuels and power. Zabaniotou (2017) discusses the role of bioenergy in the context of the Circular waste-based Bioeconomy and concludes that the global bioenergy sector may face challenges, due to the new demand for biomaterials from the same sources. Egelyng et al. (2016) and Egelyng et al. (2018) explore cascading and upcycling for a circular bioeconomy in Norway focusing on the food system. These two articles are the very first to mention the role of ecological economics in bioeconomic research. Maina et al. (2017) argue that the core CE principles are complementary to the bio-economy and should lead to the establishment of integrated sustainable approaches elaborating holistic resource utilization. The authors presented alternative innovative technologies for the utilization of waste as a CB resource.
 - d) Two papers review the concepts of bioeconomy (Adamovicz, 2017) and analyse the diversity within and between the bioeconomy, green economy and circular economy concepts (D' Amato et al., 2017). In both papers, a first approach of the CB issue is attempted.
 - e) The paper of Scordato et al. (2017) announces their purpose to study the ways of policies' formulation towards a systematic transition to a circular bioeconomy.

The rapidly emerging concept of circular bioeconomy

Even though the circular bioeconomy has been appearing in scientific work and policy making for less than four years, it has become quite popular at least as a concept. This tendency indicates that both researchers and policy makers admit the inadequacy of the CE and bioeconomy concepts towards the new socio-economic environment and that they also embrace and welcome the new CB construct. The analysis showed a steep growth of CB literature in 2016-2017 while the results of the first month of 2018 are greatly encouraging and inspire high expectations for the future of the CB system.

Actually, it appears that in policy-making, there is more and more talk about the sustainable circular bioeconomy which resonates well with the current shift towards Grand Challenge driven research and

innovation policy. Neither CE nor bioeconomy seem to be able alone to address the challenges. Moreover, the simplistic assumption, that one of the concepts may be just a part of the other (no matter which) does not satisfy either the scientific or the policy-making world. Moreover, there is much debate on the role and scope of CB, too. According to Antikainen et al. (2017) the umbrella use of CB cannot pursue effective solutions; CB should imply a transition to a fundamentally different system in regard of “new technologies and infrastructures, co-evolving shifts in markets, practices, policy and culture”.

The geographical distribution of the records, so far, indicates that CB has been born and is growing particularly in Europe. This is quite expected since according to D’ Amato et al. (2017), both CE and BE are particularly popular in the EU, mainly due to the quite strong promotion of both systems by EU policy makers as core aspects of sustainability and growth. However, it is expected to grow in the rest of the world, since China shows strong research and political interest while USA appears to adopt relevant policies (D’ Amato et al., 2017).

Therefore, the answer to the research question is definitely positive: the circular bioeconomy phenomenon is becoming popular since there is a well-organized and strongly supported campaign towards its establishment at least in Europe. Furthermore, this approach touches upon the whole ecosystem and namely business, citizens and the environment and therefore it will be embraced by all scientific, research and business fields. Accordingly, it appears that the circular bioeconomy will be soon well established in policy cycles and a fruitful area of research, regarding many disciplines and scientific fields.

As expected, the CB review indicates significant weaknesses. There are clear differences and different approaches among the research communities so far engaged in research that touches upon the circular bioeconomy, in addition to the dependence on either the bioeconomy or the circular economy views and, consequently, the lack of a holistic approach (e.g. Korhonen et al., 2018). For instance, Reime et al. (2016) take circularity for granted in the bioeconomy without considering the dynamic sense of recycling, refurbishing or remanufacturing, which constitute essential elements. Discussing on the around 300 records which name once or twice the CB concept, it appears that CB is well accepted and addressed by environmental, engineering, biotechnology and natural sciences-orientated research communities by the development of novel physical materials and processes, or even energy flow-based models, but research has not managed so far to orient findings towards a comprehensive perspective on competitiveness and positive economic development.

A significant weakness is the fact that the circular bioeconomy concept is used without having being defined. Besides one or two efforts to give a definition (e.g. Reime et al., 2016; figure in Antikainen et

al., 2017), all existing relevant work takes the CB construct for granted or confuses it either with bioeconomy or the CE concepts. While, CB has been established to redefine the entire socio-economic system in dynamic ways, most scholars adopt the concept under an environmental view focusing on the combination of waste elimination and biotechnology which they consider as the essence of the circular bioeconomy. However, this tendency rather supports the traditional linear path of management hindering the benefits and value added by the emerging technological and organizational CB innovations. On the other hand, the basic assumptions concerning the structures, values, culture and the paradigmatic potential of CB remain still unexplored. The CB research needs urgently categorization, classification and organization.

Interestingly, according to the review, the issue has not yet attracted the interest of scholars in management, economics or social sciences; this is quite normal, since such studies tend to appear later in general. However, the CB notion is gaining significant interest in a notable number of sciences and businesses and it is high time for scholars to raise discussions on the CB construct in a holistic approach and explore broad socio-economic and environmental factors, constraints and benefits of the emergent CB theory. Therefore, it is important for scholars in social, economic and management sciences to consider the infant stage of CB and its multiple roots in different disciplines and schools and work towards CB definition, conceptualization and even parameterization in order to establish the emergent but highly appealing socio-economic CB paradigm.

The circular bioeconomy should acquire its independent role in academic research as a new dynamic construct that moves forward and is not simply the umbrella of CE and bioeconomy. Scholars are called to study the phenomenon as a necessary mechanism and an agent of change mediating between its building blocks, knowledge and its transformation into sustained economic activities. The CB system has been established to shape and be shaped by the social and environmental context which is comprised of culture, people, sustainability issues and environmental aspects as well as institutions; thus pointing at its necessary linkage to entrepreneurship, tools and methods for modelling processes, and the interactions between CE, bioeconomy, knowledge, innovation, economic growth and social well-being.

Focusing on the specific need to study the phenomenon under the lens of entrepreneurship, economics and management, we call for research work at micro- and macro-level: scholars are called to study in depth the very act of CB-based entrepreneurship, in order to delineate its characteristics, scope and boundaries at micro-level. On the other hand, at the macro level, which is quite critical for policy makers, researchers should explore the links between CB, economic growth and environmental and social wellbeing. Such studies would support policy makers approach the issues systematically

aiming at an organic integration of diverse sets of policies that influence the fruitful application of CB policies and norms.

CONCLUSIONS

The present study explored the robustness of the circular bioeconomy concept within the existing literature. It is the first paper to draw on the very concept and phenomenon of the CB evolution and reveal its weaknesses regarding issues of management, economics and entrepreneurship research. Despite its rapid growth and its popularity, CB seems to mean different things to different fields, disciplines, sectors and even nations. This is quite confusing especially if combined with the fact that there is actually little consensus concerning what its building blocks - circular economy and bioeconomy - actually imply.

The analysis indicates that the CB is a brand new and a rapidly growing research topic with a transnational and multi-, inter-and transdisciplinary approach. It is mainly a European issue, so far, and it builds mainly on the synergies of the circular economy and bioeconomy concepts. Yet, the limited but growing literature on the CB phenomenon itself indicates that both researchers and policy makers admit the inadequacy of these two concepts towards the new socio-economic environment and that they also embrace and welcome the new CB construct.

Therefore, it is clear that the development of the circular bioeconomy phenomenon is rapid; however, the concept is still in an embryonic stage lacking theoretical content and construct legitimacy and therefore it requires multiple-scale and scope research. Besides focused studies in specific sectors, holistic approaches are needed to link technology assessment and business and production models to efficiency, consumer attitudes and impacts of the eco-systemic environmental and social CB dimensions. The emerging literature, as indicated by the present study, underlines the significance of the circular bioeconomy, but the results highlight further the considerable challenge and need for deeper analysis of the CB concept and construct digging into the theoretical underpinnings and its comprehensive connection to business, organizational and management study research.

A limitation of the study is that the data collection was purposefully limited in English, in searching for the terms of "circular bioeconomy" and "circular bio-economy" and only in academic publications, working papers and project reports excluding other grey literature. Nevertheless, the analysis highlighted the importance of the CB concept, the rapidly emerging academic, socio-economic and political interest, as well as a number of weaknesses. It is evident that the circular bioeconomy needs a managerial approach and advancements in theory building and testing. Perhaps the major contribution of the paper is that it makes clear that the circular bioeconomy is an exciting reality, a

novel conceptual framework which needs the attention of strategists and economic scholars. Failure to incorporate such scholarly advancements will place research in the circular bioeconomy in a questionable state of legitimacy and academic merit.

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THE NEW LUXURY: INSIGHT FROM SUSTAINABLE BRAZILIAN LUXURY FASHION

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ABSTRACT

The topic of sustainability has come into vogue trying to help reverse the unbridled search for growth and profit through the extensive exploration of nature. Regarding the fashion market (especially the luxury sector), they carry with them the burden of one of the biggest pollutants of the environment. Osklen, a Brazilian luxury fashion brand, take its first steps towards becoming one of the pioneers of sustainability in the fashion world. Thus, the main goal of the current study is to analyse the perception of customers of Osklen about how the luxury brand deals with corporate social responsibility. A qualitative approach is employed using in-depth interviews. Data are encoded and treated using ATLAS TI software. Findings reveal that customers are aware of the social-environmental concerns of the brand without losing the identity of the country-of-origin.

Keywords: Sustainability; Corporate Social Responsibility; Fashion; Luxury market.

1 INTRODUCTION

According to Cortes (2012), since the Palaeolithic humans already have some behaviour connected to luxury: ornaments, parties, unconcerned consumption of non-renewable goods, among others. At this time there is no material splendour, just the impulse of spending everything for the present pleasure not worrying about the future consequences. This is a revelation of a luxury mentality even before the existence of luxurious objects. The universe of Luxury -as it known now- arose from the need for a distinct social class, in particular for the top class of the pyramid. The intention is to stand out from the others, using products that would provide them grandiosity. Examples of these are crowns, coats, rings, ornaments and noble fabrics. These artefacts are considered exclusivity of the wealthiest class and served as a mean to show their superiority. They are also taken as measurement of the wealth of a nation since the manufacture and sale of these luxury goods occurred only where there is the possibility of commercialization.

As Michael Rae claim, *“something that is beautifully made, finely crafted, made out of rare materials and well designed, will account for nothing if it is also equated in the public mind with human rights and environmental destruction”* (De Beers Group 2008, p. 26). In this era of increased consumerism and activism, luxury brands are forced to become more transparent and socially responsible.

The notion of responsible luxury has received wide attention these days, especially after the news of Gucci maltreating its employees in its stores and Prada and Dolce & Gabbana exploiting illegal Chinese immigrants in their Tuscan factories (Caixiong, 2011; Wilkinson, 2008). In responding to such situations, many luxury brands, namely, Armani and Chanel have initiated corporate social responsibility (CSR) practices. Consumers may respond positively to environmental claims made by these firms when those claims emphasize status-related benefits (Steinhart et al., 2013).

The main propose of this study is to get a thorough understanding of the new slope of luxury that no longer focus on the values of the old luxury - status, distinction, power - but instead, has some principles of Corporate Social Responsibility embedded on it. In order to get a better insight on this new concept and how it has been communicated, the Brazilian luxury fashion brand Osklen is chosen as object of this study, once it has been one of the pioneers on the establishment and dissemination of the concept of New Luxury.

Particularly, the main goal of the current study is to analyse the perception of customers of Osklen about how the luxury brand deals with corporate social responsibility.

After the introduction, the literature review presents foundations on luxury concepts and consumption, as well as an overview about the sustainable luxury consumption issues. The third part of the article is devoted to de description of the methodology and the analysis of the findings. Lastly, in the conclusion, managerial implications, limitations and recommendations for further research are presented.

2 THEORETICAL BACKGROUND

2.1 *Luxury consumption*

Beckham and Voyer (2014), suggest that consumers use luxury to enhance status and power and that might also result in being more likely to violate social norms related to responsible and sustainable consumption rather than actively engaging with them. Yet, luxury is no longer determined only by it luxuriousness (or even only the price) of its products (Heine, 2012). Now consumers want to be emotionally touched by their experience' also aligning sustainable and ethical values and beliefs (Thomas, 2014).

Starting from the principle that products launched within the fashion world are expressions carried with values and beliefs (Valente, 2008), they can communicate their message to consumers at

the moment they are shown on the runway, replicated on social media and then displayed on the stores. Luxury brands can influence consumer behaviour through product design and example setting (Bendell and Kleanthous, 2007) and can be considered as one of the greatest responsible for setting the new trends either for goods or for services that will be launch in the market (Iloureiro and Bilro, 2016).

With many of the luxury companies operating globally, this sector can play a significant role in the dissemination and awareness of green values. They could contribute towards more responsible supply chains by developing sustainable sourcing policies; by ensuring apparel factories operate under fair working conditions; by investing in the education and development of the communities in which they manufacture their goods; by communicating these mechanisms in a transparent way to consumers; and by partnering with NGOs for long-term change (Hughes, 2001; Yu, 2008; Carrigan, Moraes and McEachern, 2013). Thus, luxury industry may contribute to helpful bringing to life this new definition of what is luxury, where greener values are expressed through social and environmental. Another of the benefits that can be seen in having luxury brands promoting sustainable behaviour is that they have the ability to make sustainable behaviour a mainstream lifestyle choice (Petersen and Muratovski, 2014; Bresciani, Bertoldi, Giachino, and Ferraris, 2015). In sum, all the brands of this industry that want to be successful should bring together aspects of the old and new luxury, enhancing brand heritage, differentiation, creativity, relationship management, as well as all the aspects of Corporate Social Responsibility.

In the fashion industry, value can be conceptualized not only in terms of the positive value generated throughout value chains, but also in terms of the harms that are co-created by stakeholders at different stages of the fashion supply chain (Carrigan, Moraes, and McEachern, 2013) and the same can be applied to the luxury industry. As firms are widely held responsible for the entirety of their supply chain. Indeed, Palazzo (2010) claim the need to examine the consequences of a company's actions, as the emphasis is no longer just for 'doing good' but also of 'doing no harm'(Carrigan, Moraes, and McEachern, 2013).

2.2 Sustainable luxury consumption

2.2.1 Corporate social responsibility

We are living in the era of 'eco-consciousness, ' and it is characterized by an increasing number of companies engaged in Corporate Social Responsibility (CSR) (Achabou and Dekhili, 2013). According to Villagra, Cárdaa and Ruiz San Roman (2016), the term CSR has its origin 60 years ago, and since then it has grown in relevance and served as the focus of numerous studies. Even not existing a consensus on the definition of this term (Achabou and Dekhili, 2013), commonly it is defined as the necessity of reconciling corporate development with ethical, social, and environmental aspects. For the European Commission, Corporate Social Responsibility (CSR) is defined as "A concept whereby

companies integrate social and environmental concerns in their business operations and their interaction with their stakeholders on a voluntary basis." In other words, it refers to companies taking responsibility for their impact on society. They believe that CSR is important for sustainability, competitiveness and innovation (European Commission).

According to Villagra et al. (2016), companies that effectively implement CSR do not measure their success based on a purely financial bottom-line; instead, they hold themselves accountable to the triple-bottom-line of finances, social impact, and environmental impacts. Organizations may examine CSR issues from a corporate perspective, but they also need to consider how other stakeholders view those issues (Carrigan et al., 2013) because, according to Loureiro et al. (2012), studies point out that CSR has a positive effect on companies once it maintains or improve both consumer and society's well-being.

2.2.2 Sustainable luxury

According to Solomon (2015), consumer behaviour can be recognized as an ongoing process, not merely what happens at the moment a consumer hands over money or credit card and in turn receives some goods or services. It means that, as said by Kotler and Keller (2012), cultural, social, personal and psychological factors influence the consumer behaviour. In this case, talking specifically about the consumers of luxury goods, it is possible to say that, according to Strehlau (2008), a product is more than the result of the sum of raw-materials, quality and producing costs once it represents any dissatisfaction: social, emotional or economical. This means that the value of the product is not only related to the monetary price spent on it, but also to the value perceived by the customer (Hasan, 2016).

Regarding the luxury-fashion market, aggregating 'high-net-worth' consumers: well-travelled, cosmopolitan individuals who use luxury products as a conspicuous code that signifies wealth and success (Chadha and Husband, 2006). All over the history, in societies have been known for wasting, squandering, spending and consuming more than what is absolutely necessary; by the simple reason that is through the excessive consumerism of the superfluous that not only the individual but also the society feels that do not exist, but they are alive (Baudrillard, 2008). However, now consumers are changing their behaviour and becoming more demanding. The acquisition of these premium products is no longer and social differentiator, seeking for much more at satisfying intimal pleasures, of a personal nature. (Valente, 2008).

Due to this changing in the luxury consumers behaviour, Cervellon (2013) points out that sustainability issues are raising and starting to be perceived as a complementary model to luxury, in particular among the wealthy (Cervello and Shammass, 2013). For consumers, ethical concerns can help to improve opinion and self-perception; they constitute an increasingly decisive factor in the

psychological satisfaction afforded by luxury goods (Achabou and Dekhili, 2013; Olorenshaw, 2011). Regarding new markets, as they mature, their more affluent citizens increasingly follow international trends, including awareness and concern over social and environmental issues, and a desire for their purchases to provide meaningful experiences (Bendell and Kleanthous, 2007).

Another relevant aspect to be considered related to new luxury is the quality over exclusivity. According to Albatross Global Solutions and the Numberly's fourth annual 'The Journey of a Luxury Consumer' report, mentioned on Tessera's article for Marketing Week (2015), 86% of the global luxury consumers are citing quality as the most important attribute for them. In conclusion, luxury consumer goods are now more aware and more demanding regarding products and services purchased by them. The history, tradition, exclusivity and high prices are no longer indicators of luxury. Environmental and social causes are real concerns, and brands have to take into consideration these new aspects to adapt to this new business era. Besides this information, there is a lack of the academic literature, where authors pay little attention to the relevance of adopting responsible practices in the case of luxury goods and do not examine the propensity of consumers to consider recycled materials in luxury purchases (Achabou and Dekhili, 2013).

2.2.3 Communicating sustainability

Kleanthous and Peck (2006), in order to decide what to communicate to consumers, one question is crucial: is your message an accurate reflection of your corporate/brand values and about your products and services? In case of a positive answer, it is considered worthwhile communicating to your consumers about environmental and social aspects of your products, services and performance once the value of the brand is directly related to the banners that they rise. It is not only regarding what they say but also, and foremost, to what they do and how they care about the environment and social well-being (Valente, 2008). Otherwise, the company can be accused of 'greenwash' and only damage the brand's reputation.

Overall, the lack of transparency and disclosure by luxury-fashion businesses makes it difficult for consumers, investors, activists, and policymakers to assess who the ethical and unethical brands really are (Carrigan, Moraes, and McEachern, 2013). Based on that, it is possible to say that marketing and brand communications can make a major contribution to meeting the biggest challenges of our age (Kleanthous and Peck, 2006) and helps on the awareness and transparency demanding by consumers, especially those concerned about sustainability issues.

In sum, luxury brands should care about their communication and marketing once they are strong tools to disseminate their greener values. What must be taken into consideration is the fact that brands tell consumers what to care about all the time, both directly and by implication or demonstration (Bendell and Kleanthous, 2007) and an effective communication help to build the

image among their target. The message has to be integrated into the most appropriate channel and if it is the case, even create an own channel for it. In the end, the credibility of luxury products will be linked to the ability of the brand to advance in well-being rather than harm (Carrigan, Moraes and McEachern, 2013).

3 METHODOLOGY

3.1 Procedures for collecting data: qualitative research

In order to achieve the goals of the study, primary and secondary data are collected. The primary data is gathered through an online questionnaire and visiting some shops of the brand. As a complementary research, secondary data are collected from the information provided by the brand and posting online.

In the current study, we conducted 30 in-depth interviews face-to-face with customers of Osklen, lasting between 60 to 120 minutes each. (questionnaire interview script in Appendix A). The saturation had been achieved with this number of interviews. No additional efforts are carried out to continue collecting data because interviewees began to reinforce the previous information without adding any further novel information (Glaser and Strauss, 1967).

Following Zikmund and Babin (2010), this exploratory research started with an open mind without any intention to achieve a particular result. First, the interviewer invites those being interviewed to think about the partner with which his/her firm has a closer, more frequent professional relationship (at least 3 years of relationship). Next, we started to ask to describe the relationship that participants (representing his/her firm) has with the partner with similar position in the other firm.

3.2 Customer sample profile

As the brand has female and male merchandise, men and women took part on the questionnaire, being men 45% of the interviewees and women the others 55%. The age and the occupation are not directly answered but, personally knowing the respondents, the researcher categorized them in some age range - going from 20 years old, up to 55 years old - and all of them are currently active on their field of work. Lastly, all the interviewees belong to a medium-high to high social class (we cross their income with their profession to get their social class).

3.5 Content analysis and data classification

All interviews are audio-recorded, with the permission of the participants. The interview results are analysed using the software ATLAS TI. All this information is subject to a careful content analysis process. A detailed analysis of the responses from each interview is carried out, and through a semiotic clustering process (Feldman, 1995).

The process of category creation is based on the Grounded Theory requiring the researcher to actively interpret the raw data and code components that emerge from the interview data as signifiers, parts, properties, or instances of other coded components (Batra et al., 2012). Each researcher individually used the same methodological to coding and subsequently the results are compared to avoid bias. The discrepancies found are discussed and agreed upon (Olesen, Droes, Hatton, Chico, and Schatzman, 2002). No significant differences are found between participants with regards to gender, or types of organization (supplier or distributor).

4 RESULTS

4.1 Overview Osklen brand

The history of the brand Osklen starts before the idea of building a fashion brand. Back in 1986, Oskar Metsavaht – founder and creative director of Osklen- worked as a physician and due to his knowledge of biophysics and ergonomic, he is invited to be part of an expedition to Mount Aconcagua, in the Andes. One of his functions is to search for clothes that would keep them warm and prepared for the adversities they would face during the trip. However, at that time, Oskar did not find the most suitable clothes and equipment, deciding then to develop the fabric to make the clothes designed by him.

According to Metsavaht, the brand works under five main pillars: universal aesthetical language, the originality, the meaning, the intrinsic quality and the sustainability. For their Mission, they aim to enchant the customers with their products, services and attendance, do not forgetting their social-environmental commitment. Their Vision is determined through their style, creativity and authenticity - a global brand, original from Rio de Janeiro. For last, their Values are based on the creativity, balance, sophistication, detachment, technical quality, contemporaneity and sustainability (Boechat, 2016).

The concept of 'New Luxury' consists of deeper and greener values and is fully embodied in the sourcing, manufacture, marketing and distribution of products and services (Bendell and Kleanthous, 2007). Oskar Metsavaht claim that New Luxury is based on one simples equation: $\text{ETHICS} + \text{AESTHETICS} = \text{NEW LUXURY}$.: *"the representation of a lifestyle compatible with the sustainable values. It is a way of being and dress that opposes to the exhibitionism. It is a combination of simplicity and elegance, despoliation and sophistication"* (Osklen, 2015). Specifically, inside the fashion world, New Luxury consists in developing refined design to sustainable materials. In other words, it is the combination of the two factors already mentioned: Aesthetics and Ethics.

The communication of a brand evolves several aspects. Official Website; Social Medias; Advertisement in magazines (especially in fashion magazines like Vogue and Elle Brazil); Personal Selling; Physical

Store; Products; Symbols; the perfume 'Vento'; Lectures given around the world by Oskar Metsavaht; among others.

Brands are now creating online platforms and social networks pages devoted "to the conception of new offers and ideas and are open to feedbacks" (Benmiled-Cherif, Kaufmann and Manarioti, 2016, p.3). The Osklen's website is an important communication and promotion vehicle for the brand. It contains information about the history of the brand as well as its founder and creative director, Oskar Metsavaht; all the collections already presented and the one being sold at that season. They are present on Facebook, Instagram and Twitter and have separate accounts for some of their lines of products. Like the website, their Social Media can be found in different languages.

4.2 Osklen social-environmental responsibility partnerships

The social-environmental movement of Osklen regards the partnership with Instituto- E (a non-profit organization run in Brazil that believes that the sharing of information is the first step towards the promotion of a sustainable human development), E-fabrics (a permanent project that works on the identification of sustainable raw materials, aiming the textile production and the fashion market), E-brigade (the movement Save your Lifestyle. Act Now."), E-Ayiti (a project started from Haiti) and Ashaninka (an indigenous tribe settled in Amazon).

Osklen works directly with the Instituto- E as the main partner in the fashion industry and as an experiential laboratory' for them. By producing clothing and accessories using sustainable materials developed and recognized by the institute's tag 'e-fabrics,' Osklen's products introduce innovation on the fashion market.

The goal of the E-fabrics project is to promote studies about the environmental impacts on the productive process, the preservation of the biodiversity and also the social relationship with the producing communities. Osklen worked as the incubator for this project, beginning to use the sustainable materials in 2001. Among the materials employed by the brand, stands out the Pirarucu and salmon leather; the recycled pet fabric composed of cotton and polyester fibres, result of the recycling of Pet packaging; the organic cotton, cultivated without using any harmful substances to the environment; the recycled tricot, made of defibrillated cotton yarn prevent of the leftovers of textile industry; and the organic silk, produced with cocoons discarded by the traditional silk makers for being out of standards.

The E-brigade is a movement started at the end of the 90's, by the hands of Oskar Metsavaht, under the slogan "Save your Lifestyle. Act Now." The main goal is to reunite ecologists, sports people, journalists, professors, environmental preservation organizations, community action organizations, companies and research and teaching institutions to fight against the environmental misinformation. This project is the seed to the foundation of Instituto-E, and the movement still keeps on going.

The E-Ayiti project started in Haiti, back in 2012, where Osklen developed an accessories collection handcrafted by local artisans and supervised by designers of the brand. E-Ayiti is a project that still going on and based on a partnership between Instituto-E, Osklen and Ethical Fashion Initiative (EFI) – this last one being a project related to United Nations and has as its slogan "Not Charity, Just Work." The goal of EFI is to connect designers from the entire world to artisans from economically vulnerable countries and make sure that artisans receive a fair payment for their work.

Ashaninka is the name of an indigenous tribe settled in Amazon, on the borderline between Brazil and Peru. The choice of this tribe to be the inspiration theme of the summer collection 2016 came naturally, once Oskar Metsavaht and Nina Braga - director of Instituto-E – already knew them and considered them different from other tribes. This distinction comes from not only the long vestments they use but also because of the aesthetical quality that it evokes, leading to a vast and rich symbolic repertory. This tribe is a direct descendant of the Inca civilization and bring with them the wisdom and nobility of their ancestors, both themes that inspire Metsavaht to explore even more their universe.

The partnership between Osklen, Instituto-E and the tribe of Ashaninka establish that the tribe would receive royalties on the sales of the summer collection 2016 to finance the improvement of the tribe's school and to buy a land in Acre and to build the base for their association.

4.3 Consumers perspective

4.3.1 First contact with Osklen

The first question (How was your first contact with Osklen?) is placed to understand how the consumers had the first contact with the brand. The answers varied between a few statements, but two ends up being more relevant since they appear more often. The first one was similar to *"I received a gift from friends/ family and liked the brand"* and represents 43.3% of the total answer. This means that the participants followed someone's recommendation and from that point on affirmed that they liked the product and became Osklen's customers. The second one could be summarized as *"I was walking in a shopping mall/street, I saw the store and end up buying some products."* This statement corresponds to 53.3% of the answers and, in other words, it could be said that these customers discovered the brand on their own and some features of the brand caught their attention to the point that they became regular customers.

4.3.2 Information about Osklen

The second question (Tell me how much you know about Osklen) aimed to know knowledge of the participants about Osklen. Through the use of the software ATLAS T.I., it is possible to get two analysis results: a table of the most used words and, after coding the most relevant information. Regarding the words, those which appeared more frequently are: *Brand* (25 times), *Brazilian* (16), *Oskar*

Metsavaht (12), *Clothing* (12), *Physician* (8), *Búzios* (8), *Rio de Janeiro* (7), *Fashion* (6), *Surfing* (5), *Sustainability* (4), *Sports* (4), *Coats* (4), *Style* (4), *Aconcagua* (3), *Cold* (3) and *Snow* (3). Looking at this list, it is possible to verify that the number of times the majority of word appeared is very small. This fact leads us claim that only a few customers have known about the brand, its origin, its founder, its concepts, and values. In what concerns to sustainability and style -which is part of the New Luxury's formula - Ethics + Aesthetics = New Luxury -it is possible to state that only 13.3% of consumers are aware of factors that are part of the pillars in each the brand stands.

When looking at the appendix 2, it is possible to see twelve codes. These are established according to the topics addressed by the interviewees and are counted to see how often they appeared. The codes are: *Sustainability*; *Luxury*; *Fashion Brand*; *Brazilian Brand*; *Brazilian Soul*; *Sports, Nature and Adventure*; *Designer, Physician and Art Director*; *Alpargatas group*; *Arts*; *Technology*; *Support of Social-Environmental Causes* and *Oskar's Trips*. All these words are clearly related to Osklen, and between them, they also demonstrate some relationship (seen in appendix 2). Although the interviewees gave some interested and truthful statements about the brand, once more, the question is the how often the codes appear on the customer's' answers.

As a result of this analysis, it is possible to claim that (i) customers tend to have certain knowledge about the origin of the brand, as well as its founder and designer, (ii) the majority of customers make a direct relation to the brand with sports, nature, and adventure and that Brazil is one of the greatest sources of inspiration for the development of collections. However, the issue of being a luxury brand and the subject of sustainability is rarely mentioned, which shows the lack of knowledge of customers regarding the brand's positioning, as well as one of its main values.

4.3.3 Decisive factors of purchase

The third question (What are the factors that drive you to buy products from Osklen?) is formulated thinking about the factors drive customers to purchase products of Osklen. As in the previous question, a table with the most used words is elaborated, as well as the codification of the answers to facilitate and better understand the determining factors of purchase. The words that appeared the most, in descending order were: *Quality* (17 times); *Style* (7); *Design* (6); *Material* (5); *Different* (4); *Beauty* (3); *Exclusivity* (2) and *Status* (2).

Taking into account all the highlighted words, all of them live up to the brand and the characteristics of its products - except for Status and Exclusivity that is not one of the brand's mottos; despite indirectly enweaving this sensation in some of the consumers. Quality is revealed to be the most important decisive factor of purchase by 56.6% of the participants, followed by Style and Design. These two last words are crucial for fashion brands, especially for Osklen, once Oskar Metsavaht

constantly assures that produce sustainably does not mean compromising the style and the design of the product because, after all, this is a major factor for both the brand itself and the final consumer.

Contrary to what is expected, *Sustainability* is considered an important factor only by one of the customers. This fact demonstrates again that the "green side" of the brand is not taking into consideration - either by the lack of knowledge that the brand is working with this aspect or by the lack of interest of consumers in procuring products that do not harm the environment.

4.3.4 Brand social responsibility

The purpose of this question (How socially responsible do you think Osklen is? Sustainability, environmental concern, recycling, help local communities and care about the employees seem to be an important issue for them?) is to understand if the participants knew that the brand incorporates in its identity some elements related to CSR, such as sustainability, recycling, concern for the environment, help communities with which they work and ethics at work.

Surprisingly, more in a negative way, more than half of participants are unaware of this fact. Out of the 30 responses, 16 of them - or 53.3% - claim they do not know or even heard about the actions promoted by the brand. Three other participants mention that they believe that there is some concern about the environment, but they would not exactly know what the brand's actions w concerning CSR. Moreover, one of the respondents believes that it is nothing more than a marketing strategy because he has never seen or heard of the good practices of Osklen (see appendix 4).

Ten of the 30 interviewees have some knowledge about the partnerships of Osklen. The Instituto-E is mentioned, as well as the theme of sustainability and sustainable materials used by the brand; the attempt to reduce carbon footprints and social and environmental concerns.

4.3.5 Materials and production processes

The fifth question (How much do you know about processes and material that Osklen uses on their production?) sought to understand how much the customers know about the materials used by the brand - particularly about the sustainable materials that the brand developed - and how the Osklen's product manufacturing process works.

Using the word count table elaborated with the help of software ATLAS T.I., the ones that repeated the most and are more relevant for analysing are 'No' (or the expression, "*I do not know*") that appear 11 times and 'Nothing,' appearing nine times. Summing these two words (that corresponds to the final answer of some of the interviewed people) we counted 20 negative answers to the question about knowledge of the materials and methods of manufacturing the products. Besides that, one participant mention that "...knew about the quality of the materials but did not know anything about the manufacturing process" not even mentioning the sustainability attached to most of the fabrics and materials used by Osklen. Therefore, the total of 21 negative answers - or 70% - demonstrates a

possible flaw in the brand's communication regarding this topic. Concerning the other nine answers, all make some reference to sustainability, recycling and cultivation of the raw material, fabrication process and the disposal of the same (see appendix 5).

4.3.6 Store atmosphere at the moment of purchase

According to the table elaborated with the words that most repeated in all the answers of the six question (Can you describe how the staff of Osklen create the atmosphere at the moment of purchase?) and that was relevant to be analysed are: *Pleasant, Relaxed, Customer, Differentiated, Staff, Young, Attendance, and Atmosphere*. Adding to that, there are the codes established and linked through the framework of appendix 6, which demonstrates how consumers perceive the environment of store at the moment of purchase.

Overall, it is possible to claim that participants report a positive experience, praising the way the staff attended them, being these communicative and friendly. On top of that, the own environment of the store that brings among many things the ambient music, the aroma of the 'Vento' perfume - the feeling of being on the beach - demonstrates that what the brand founder idealized for the stores has been perceived by customers and has effectively contributed to communication with them.

Aspects regarding the service provided and the general appearance of the store (decoration, music, aroma, etc.) are perceived positively by participants. The only negative aspect would be, once again, the amount of information transmitted by the staff, especially when they are asked about the sustainability issue and no further answer is obtained on the subject.

4.3.7 Fair prices

If the customer perceives the quality of the product being offered to him/her, consequently the price paid will be understood as fair, and the customer tend to become satisfied. This is the point to be analysed with this question (What do you think about the prices practiced by Osklen? Are they fair taking into consideration what they offer to their clients?). More than half of the participants tend to agree with the prices charged by Osklen. The justification they give for this is that the products have quality, sells design, sustainability and the Brazilian Soul. The positioning the brand established on the market - Brazilian luxury brand - being one more reason that justifies the high prices Osklen practices. Among those who agreed, 18 participants still consider it expensive.

On the other hand, 40% of the participants do not consider the prices fair. Among the reasons mentioned, the quality appeared again - but negatively; and neither of them recognizes design, sustainability or any other differentiator aspect of the brand (see appendix 7).

4.3.8 Causes supported by Osklen

The eighth question (Do you know about the causes/projects that the brand supports?), the majority of the answers are negative with 80% of the participants saying that they have no knowledge about the topic (see appendix 8). This fact demonstrates that only six customers have some information on the subject and yet, one of them state that *"acknowledges the existence of these partnerships but do not know any concrete example."*

4.3.9 Osklen is a sustainable brand, isn't It?

The ninth question (How do you feel about Osklen claiming to be a sustainable brand? Do you agree or do you believe that is only used as a marketing strategy?) aims to analyse the sustainability side of Osklen. As the own brand claims as sustainable, the goal here is to discover if the customers knew about it and if they agreed with this statement. Of the 30, we have 18 individuals who say that the brand works sustainability. Another customer says that he believes that the brand only works with recycling and not sustainability.

On the other hand, four participants claim that the theme is only used by the brand as a marketing strategy - which leads one to believe that knowledge of what they buy is minimal - and seven others said they did not have knowledge about this subject regarding brand (see appendix 9).

4.3.10 New luxury: what is it?

The last question (Have you ever heard about the concept of 'New Luxury'? What do you think it is?) is about the concept of New Luxury. Only 9 out of 30 participants mention that they know what it means. Of this total, only three could describe exactly the concept of the New Luxury, and the others gave a similar description of what this concept would be.

The other 21 - or 70% - participants say that they do not know what it means, and only a few of them could give some explanation that is close to the real concept of New Luxury. Some others do not even try to guess or answer something completely wrong (see in appendix 10).

5 CONCLUSION AND MANAGERIAL IMPLICATIONS

The main goal of the current study is to analyse the perception of customers of Osklen about how the luxury brand deals with corporate social responsibility. With this aspect in mind, we intend to provide a better explanation of the proposed subject: "The New Luxury is not Gold, it is Green: Communicating Sustainability within the Luxury Market - the case of the Brazilian Luxury Fashion Brand Osklen" and promote a better understanding of a topic still recent in the luxury market. A qualitative study is conducted and the data analysed.

From the Osklen process of research and development - part about sustainable and technological fabrics; partnerships - most known is the one with Instituto-E, which promotes the

sustainable development; and Lectures given by Oskar Metsavaht worldwide are concrete examples of what the brand has been doing.

According to Bendell and Kleanthous (2007) consumers are slowly shifting their mindset and demanding companies to make use of good practices. In some countries this might be a reality, however in Brazil - by seeing the results of the research - it is possible to claim that consumers are still attached to the values of the old luxury. Sustainability, transparency and fair trade are not relevant factors when deciding to buy Osklen's merchandise or any other luxury product.

As the brand is one of the few, not to mention the only brand of reputation in Brazil that works sustainability has a responsibility to disseminate these green values and help create awareness about this subject on the consumer's mind. Moreover, the fact that the brand is framed within the luxury sector makes its message even more relevant and influential in the mind of the consumer, once luxury brands exert strong influence on consumers' aspiration and behaviour, influencing how, when and for how long consumers use their products (Bendell and Kleanthous, 2007). This fact influences not only consumers but also other brands. Moreover, this could be the beginning of the snowball, or as the author prefers to call "the green wave," that raises awareness to the subject and make brands shift their practices or even make new brands start in the business already taking into consideration CSR practices.

However, the main question for this research is related to the process of communication of these values by the brand. The communication can be done in different ways and, when integrated, they can be more powerful and efficient because they transmit a cohesive message and hit the target in a variety of ways. Yet, when analysing the results, only a very few participants are aware of the good practices and the pillars in which the brand lays. Unfortunately, the scenario is more negative than positive, and these results are possibly a reflex of how they have been communicating with their customers. Moreover, the store's atmosphere is an important means of spreading the brand's message. The design, visual merchandising, decoration, illumination, every aspect is helpful when talking about communication. In addition, direct communication between salespeople/staff and customers is very effective when well executed and collaborates to create a favourable environment at the time of purchase. This last factor mentioned, relationship selling, is highlighted by Loureiro et al. (2012). as one of the points to be analysed regarding good practices of CSR and this is the purpose of this question.

Most of the participants demonstrate having some information regarding the origin of the brand. They also recognize the brand by its quality of merchandising and the unique design, but not regarding the social-environmental causes they support or the sustainable fabrics they use, for instance. Apparently, only people related or with a keen interest in fashion, or those that for some

reason studied about the brand – for academic purposes, for example- have the knowledge about the sustainable practice of the brand.

The lack of knowledge on the part of the consumers is not a specific object of this study. However, it may be associated with some causes. One of the possibilities would be the lack of cultural and visual education in Brazil. So, by cultural education, the professor Barend van Heusden says that is the capacity of reflecting about their own culture (Education Talks, 2016) and analyse and interpret images.

Therefore, as Oskar express in the interview granted to Robic (2011), Osklen's communication lays on the image. The prints, the pictures, videos, Instagram, the decoration of the stores, all elements combined create the message that the brand wants to transmit. Not to mention the items that are part of the sensory marketing - in this case, the smell and the hearing - that also help to compose the message of the brand for its consumers. Nonetheless, this process could be enhanced by a more verbal and written communication once not all the consumers have the image tic perception or the ability to interpret the message when showed it in this way.

Concluding, the brand has a message and values that could be spread to a greater number of people and, perhaps, influence them and other brands for social-environmental sustainability issues. For that, we recommend that Osklen rethink some points of their communication strategy to include more ways to reach your customers. Improvements in point-of-sale communication and a greater focus on Social Media – as Social Media can attract a large number of people - could be options to be taken into consideration to create more knowledge about some of the worldwide pioneers in the Sustainable Luxury.

Kleanthous and Peck (2006) states that brand should only communicate their sustainable values if they actually practice it. Otherwise, it can be seen by the consumer as a 'greenwash, ' and this might descry the brand's image and reputation. Then, in the case of Osklen, the communication of their values should be made since they are reflected both in their merchandise and in the causes in which they help. In order to make it happen, the brand could enhance their communication beyond the images and invest more on verbal and written one, aiming to create more awareness among all the consumers – not only those who already have great interesting in fashion, particularly in Osklen, or those who used the brand as a subject of their studies.

Concerning the verbal communication, customers tend to learn better when they hear something rather than just seeing it because the last one demands more cognitive interpretation than what is explicitly spoken (Solomon, 2015). Regarding the written communication through the publications on Social Media sent to customers, the use of hashtags (#) in Social Media is already a common practice for the brand - #ebrigade, #efabrics; #amazonguardians and should keep the

practice. Indeed, Social Media is a useful and easier way for people to research and find more information. But brand managers could select a few of them to use more frequently because the more it is repeated, the more people retain the information.

In the future, getting insights and opinion from employees within the company can add value to the study. Second, as the brand is Brazilian and most known is this country, the study focused on people that live in Brazil and who belongs to a medium-high social class (due to the high price of the products, the brand is not affordable for everyone). Hereafter, we recommend extend this study to other countries and markets where the brand operates because it could be a way of comparing how the brand is viewed inside and outside its country of origin and whether or not the communication is effective.

Third, a deeper study in the Osklen's Social Media - Facebook, Instagram and Twitter - could add some valuable information to the study. Take into consideration likes, shares and comments may demonstrate the engagement of consumers with the brand and could be a good way of understanding what people say and think about them, focusing in analysing if the good practices of Osklen are mentioned by its consumers.

Lastly, analyse the information on the brands' newsletter. Once the brand gives the opportunity in their website for consumer to enrol and receive their newsletter, analyse the content (if it is or not related to their CSR practices or only about the collection itself) and the frequency to send to customers, it is a good approach to get more information about their communication.

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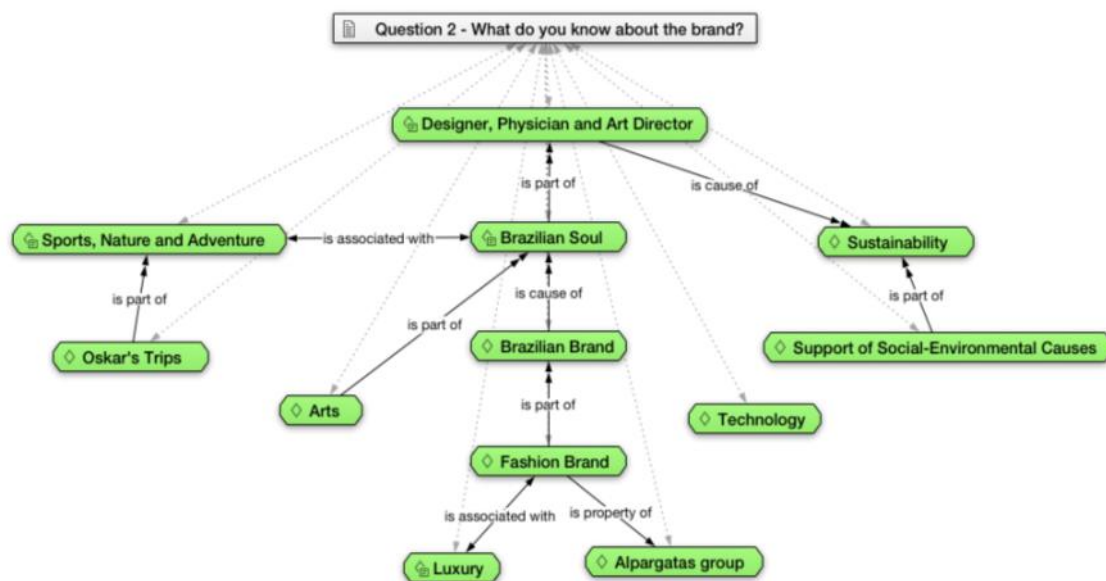
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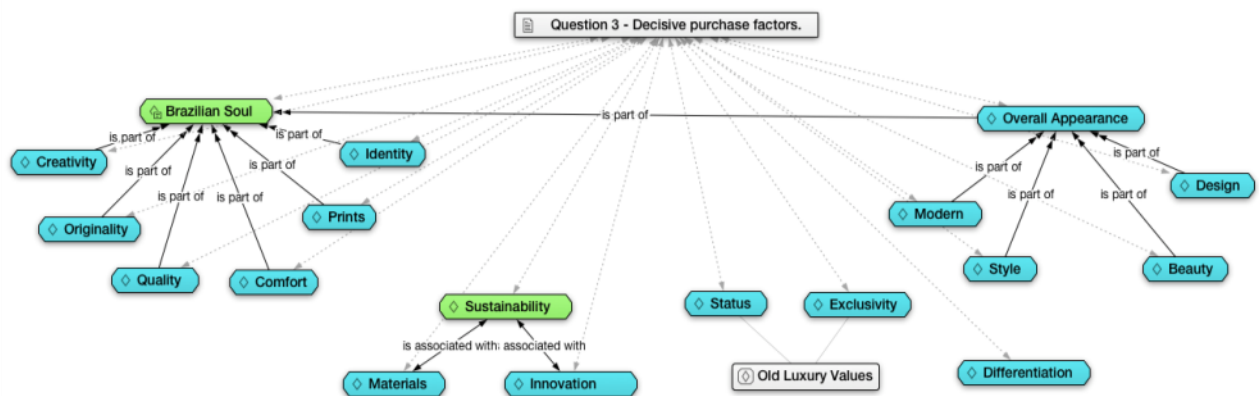
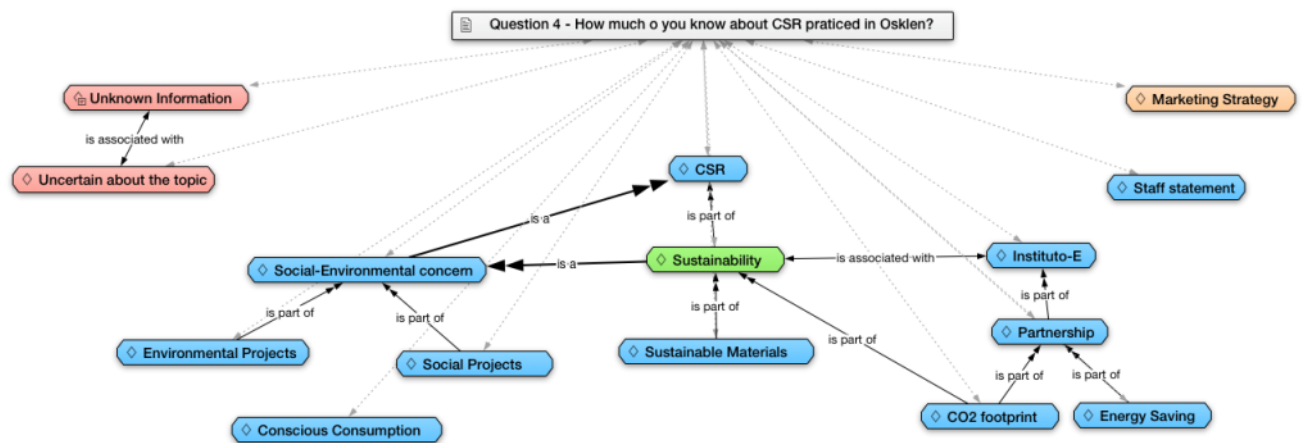
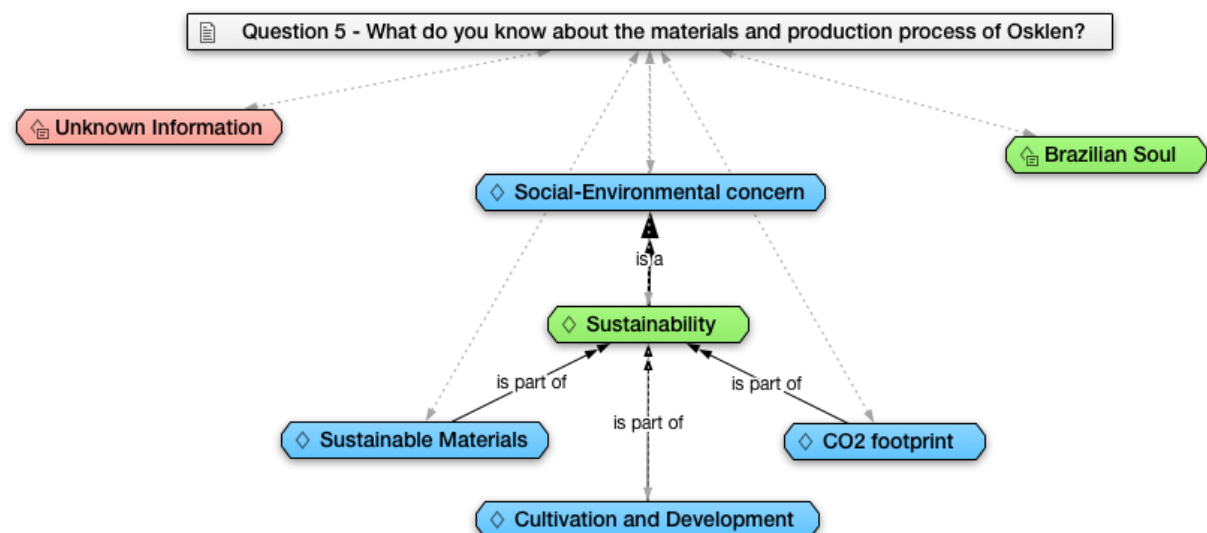
APPENDIX

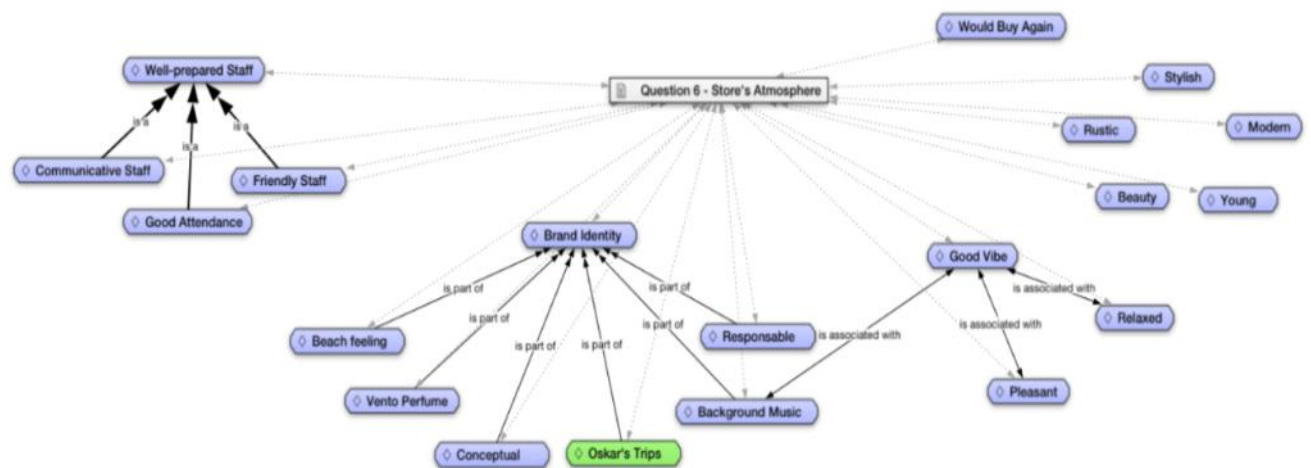
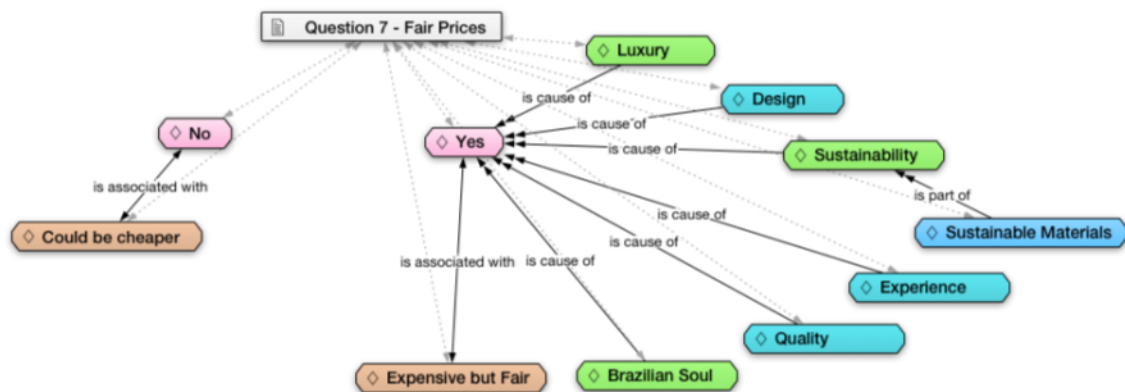
Appendix 1- Questionnaire

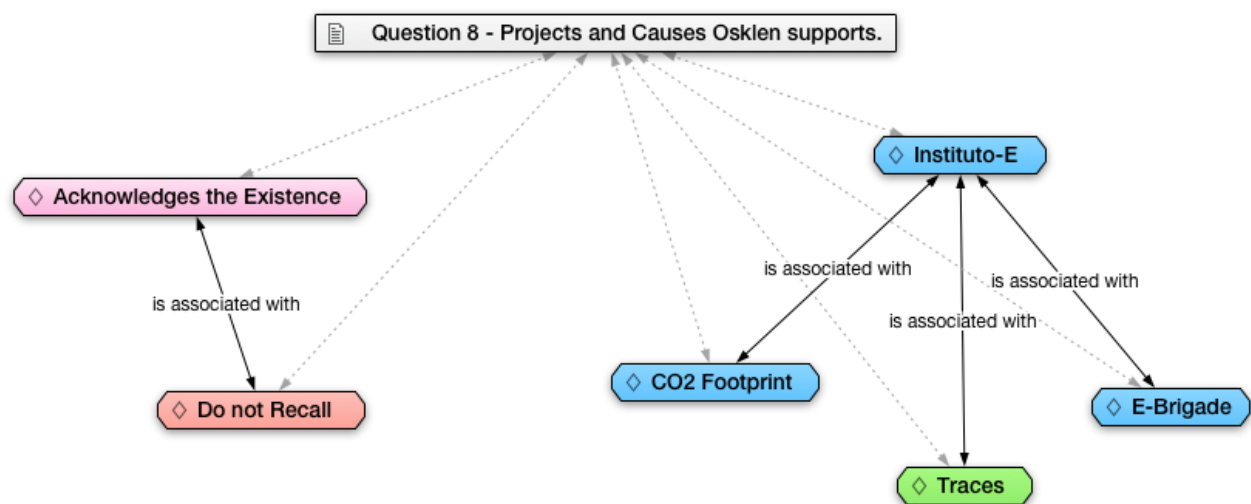
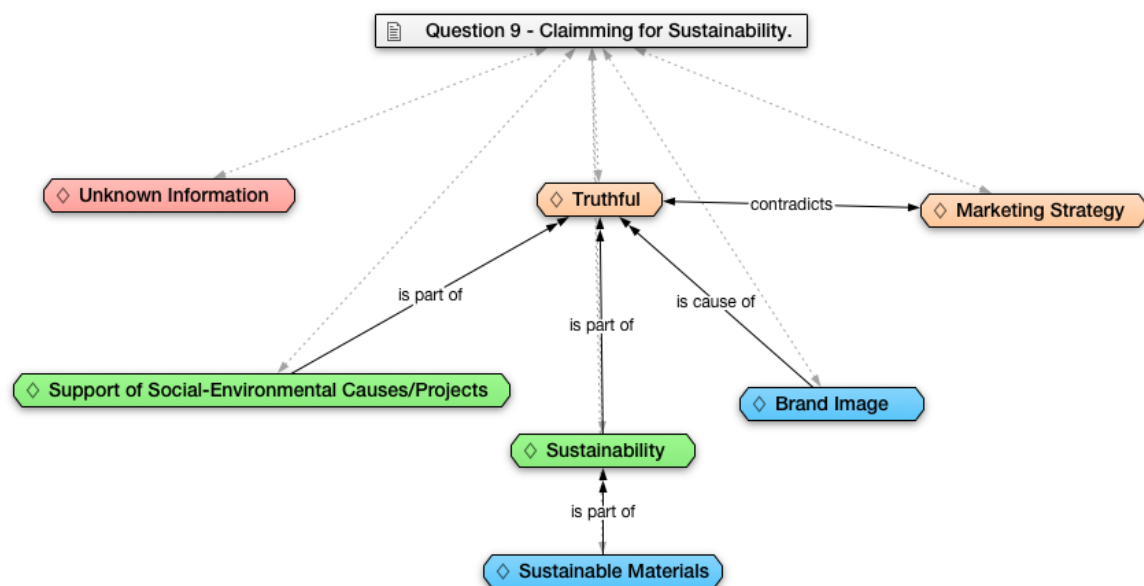
#	QUESTIONS
1	How was your first contact with Osklen?
2	Tell me how much you know about Osklen.
3	What are the factors that drive you to buy products from Osklen?
4	How socially responsible do you think Osklen is? Sustainability, environmental concern, recycling, help local communities and care about the employees seem to be an important issue for them?
5	How much do you know about processes and material that Osklen uses on their production?
6	Can you describe how the staff of Osklen create the atmosphere at the moment of purchase?
7	What do you think about the prices practiced by Osklen? Are they fair taking into consideration what they offer to their clients?
8	Do you know about the causes/projects that the brand supports? Name at least one of them and give a brief explanation about what they do.
9	How do you feel about Osklen claiming to be a sustainable brand? Do you agree or do you believe that is only used as a marketing strategy?
10	Have you ever heard about the concept of 'New Luxury'? What do you think it is?

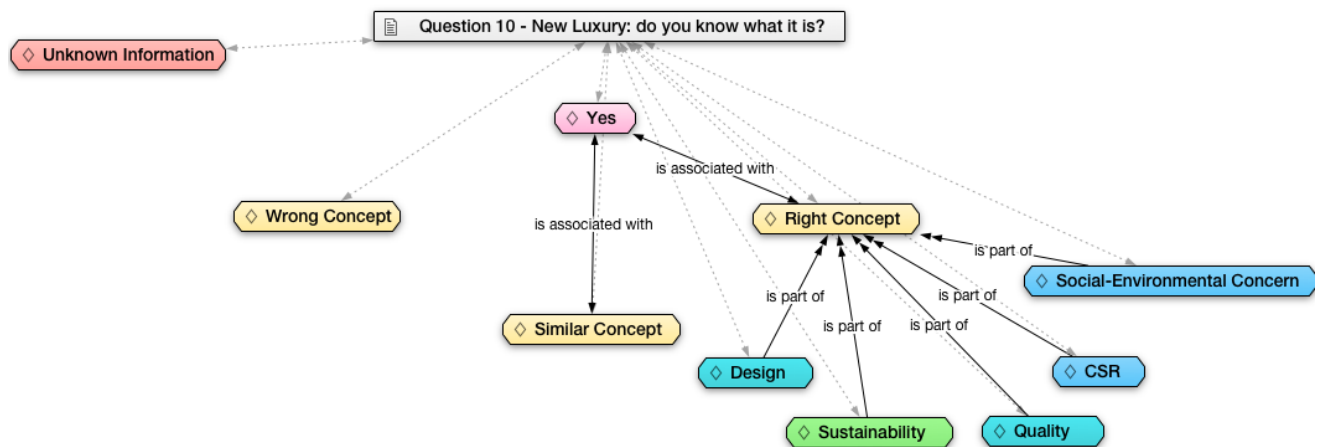
Appendix 2- What do you know About Osklen?



Appendix 3 - Decisive purchase factors.**Appendix 4 - How much do you know about CSR practiced by Osklen?****Appendix 5 - What do you know about the material and production process of Osklen?**

Appendix 6 - Store's Atmosphere at the moment of Purchase.**Appendix 7** - Do you think the prices practiced by Osklen are fair taking into consideration what they offered to their clients?

Appendix 8 - What do you know about the material and production process of Osklen?**Appendix 9** - What do you think about Osklen claim itself as sustainable?

Appendix 10 - New Luxury: do you know what it is?

NETWORKING ABILITIES AND DYNAMIC CAPABILITIES FOR AN “INNOVATOR FIRM” PROFILE IN THE ITALIAN MANUFACTURER INDUSTRY

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ABSTRACT

Although innovation is considered the lifeblood of many organizations, firms are often challenged to derive the anticipated performance benefits of innovation. Research on the firm's innovation profile is justified by the relations between dynamic capabilities and networking vocation. This study presents a model that assesses manufacturer firms' innovation profile based on dynamic capabilities and networking abilities and in which dynamic capabilities are founded on three cross-sectional capabilities: strategies, skills and stakeholders. To reach this aim and overcome literature weakness, the authors consider the firm as a Complex Adaptive System that to survive must, constantly, create and maintain relationships, adapting its capabilities and behaviors, with relevant stakeholders. Empirical analysis is based on new real data taken from a survey made on 3.500 Italian SME manufacturing firms, with the goal to better investigate the interactions of networking firms and their ability to innovate. Graphical log linear models were applied to understand how the firms interact in the system.

Keywords: Innovation, Dynamic Capabilities, Networking, Log-linear models, Graph analysis.

INTRODUCTION

In the present paper, the authors investigate the degree of innovation resulting from the respective level of awareness or unawareness of networking and the dynamic and adaptive capabilities to create the innovator firm profile in the ecosystem of the Italian sharing economy in the crisis period.

In the last decades, this matter was tackled by a lot of researchers that based their studies on the dynamic capabilities considering internal and external organizational levels (Lee et al., 2001; Wang & Ahmed, 2007; Helfat et al., 2007; Ambrosini & Bowman, 2009; Zhang & Wu, 2017; Grigoriou & Rothaermel, 2017). Teece et al. (1997: 516), considered to be the founder of dynamic capability scientific stream, argued that firms need abilities to integrate, build, and re-configure internal and external competences to address rapidly changing environments.

To better analyse the innovator profile, the authors try to overcome the internal and external differences considering the firm as a system composed of tangible and intangible components in interaction to achieve corporate survival by creating and maintaining dynamic and adaptive relations with numerous and heterogeneous stakeholders (Beer, 1979).

These numerous and heterogeneous relations characterize the system firm as a Complex Adaptive System (CAS) being an autonomous component of a supra system (place/territory, industry, district) influenced by the other social and economic systems, in direct or indirect relationships between them, that contribute to create an information variety state (Yolles, 1999; Ashby, 1956).

On this basis, firms, to survive, must reduce the environmental information variety demonstrating capabilities both, for obtaining more information and adapting their behaviour to changing circumstances and to anticipate future events creating sustainable relations with relevant stakeholders (Ashby, 1956; Wheelan, 1996).

To reduce the environmental information variety attenuating the contextual complexity, the system must amplify its information variety (adding capabilities, know how, knowledge) and eigen-complexity. New information and knowledge (exogenous and endogenous) can create opportunities defining, in this way, a firm as an owner of dynamic and adaptive capabilities, as emphasized by Schumpeter (Schumpeter, 1934; Breznik & Hisrich, 2014).

In many ways, much of the traditional literature on organizational adaptation is consistent with dynamic capabilities (Miles & Snow, 1994). In particular, the strategy and organizational behaviour literature emphasize adaptive conditions between and amongst strategy, structure and processes.

In this theoretical scenario, the innovation can be considered as the interconnection of two capabilities:

- dynamic adaptability of its skills useful to overcome chaotic states, to reduce the contextual complexity, reaching a state enabling the firm/system to satisfy consumer/user needs (Kirzner, 1973; Teece, 2007; Basile et al., 2018);
- creating and maintaining network relations with relevant stakeholders as owners of resources essential for the firm's economic and social survival.

To reach these objectives, the present work is composed of: i) in the second section, a representation of the theoretical context ii) in the third and fourth parts data, research methodology and main findings will be presented; III) finally, conclusions will be drawn.

THEORETICAL CONTEXT AND LITERATURE REVIEW

The system capabilities to create and maintain relations with the environment are a property on which the 'network-ification', that we consider a useful state, is based, reflecting the need to build

capabilities of integration/co-creation, up-stream and/or downstream, to deal with competitive challenges and social needs (Chesbrough, 2003; Smart et al., 2007; Azadegan et al., 2013).

The results of 'network-ification' are to access new knowledge, to share risks and resources, and jointly developing dynamic and complementary skills and capacities. Importantly, these collaborative networking induce innovation, also co-creating new sources of value by confronting ideas and practices, combining resources and technologies (Camarinha-Matos and Afsarmanesh, 2006).

Contrary to what was emphasized by Teece et al. (1997) and Eisenhart and Martin (2000) who considered firm network abilities as one possible manifestation of a dynamic capability, the authors consider network abilities as a variable on which the system, combining them with dynamic capabilities, founds its adaptive and innovative behaviours.

In a networking context, the authors imagine numerous and heterogeneous relations, in which the players are, among others, suppliers, consumers/users, public institutions, financiers, social communities.

In this scenario, characterizing a sharing economy, networking components interact to co-create and innovate products, services, improve states of mutual well-being, provide knowledge, skills and other elements.

Against this backdrop, the authors analyse an Italian manufacturer ecosystem with entrepreneurs displaying the following different 'networking perceptions':

- aware
- unaware.

In the ecosystem analysed, the entrepreneurs show different dynamic and adaptive capabilities' applications considered by the authors as:

- tangible dynamic and adaptive capabilities
- intangible dynamic and adaptive capabilities
- no dynamic and adaptive capabilities.

Beyond technology, innovation is the result of the successful choice of a business model that includes decisions and strategies, over a combination of assets, skills and abilities to create and maintain relations with relevant stakeholders (Shafia, et al., 2016). Similarly, Eisenhardt and Martin (2000) identify, as important preconditions, cross-functional R&D teams, new product development routines, quality control routines and certain performance measurement systems.

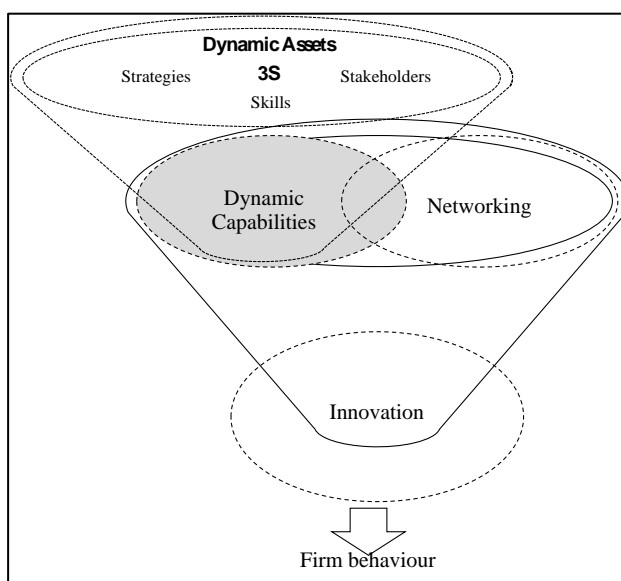
While, in the start of the century, the founders of the dynamic capabilities stream created quite a diffuse body of theory, a lot of researchers acknowledged the possibility of its impact on firm performance or competitive advantage (Menguc & Auh, 2006; Molinterno & Wiersema, 2007; Pablo et

al., 2007; Schreyögg & Kliesch-Eberl, 2007) and to overcome the criticism of being vague, elusive and tautological (Williamson, 1999; Kraatz & Zajac, 2001; Danneels, 2008).

To fill these gaps the authors' research aims are to define a firm's innovator profile and not to classify dynamic capabilities as the way to reach successful performance or competitive advantage; moreover, to overcome the tautological and vague accuses, they propose to individuate the assets, considering also the entrepreneurial behaviours analysed, that represent the dynamic capabilities.

On this basis, the authors, to better define the firm's innovator profile, consider dynamic capabilities as being composed of three variables (3S) that represent, in an interactive way, dynamic assets (Fig. 1): strategies, skills and stakeholders (Leih, et al., 2014).

Fig.1: Dynamic capabilities and 3S



The authors investigate the skills and the propensity to create, extend and reconfigure the resource base (Teece et al., 1997; Eisenhardt & Martin, 2000; Helfat et al., 2007).

The strategies variable represents the strategy-making process capability applied by top managers and/or middle managers (Salvato, 2003; Slater et al., 2006; Pablo et al., 2007).

Finally, the stakeholders variable reflects the alliance and acquisition processes that bring new resources into the firm (Capron, Dussauge & Mitchell, 1998; Gulati, 1999; Lane and Lubatkin, 1998; Powell, Koput & Smith-Doerr, 1996).

Summarizing, this paper, considering Dynamic Capabilities composed of enterprise Skills, Strategies and Stakeholders (dynamic assets), investigates the relation between dynamic capabilities and networking abilities defining the firm's innovator profile (Zollo, et al., 2012).

The paper conjectures that the firm's innovator profile is determined by the degree to which 3S dynamic capabilities variables can contribute to innovation either in dependent or independent relations between them (Pisano, 2017).

RESEARCH METHODOLOGY

Data in the present research are collected from a survey made specifically to explore and understand the adaptative capability of the Italian firms to the system.

Survey data can be summarized through high dimensional contingency tables, that evidence the relation between the different categorical variables, as the 3S and the dynamic capability (DC) of the firms. However, the analysis of contingency tables involving several factors may be hard. Therefore, the authors propose the use of graphical and decomposable log-linear models to determine interactions among the various factors (Darroch et al., 1980).

Let consider, for simplicity of exposition, a log-linear model with three categorical variables X, Y and Z. Then the saturated log-linear model of the expected cell count in the contingency table μ_{ijh} is given by:

$$\log(\mu_{ijh}) = \lambda + \lambda_i^X + \lambda_j^Y + \lambda_h^Z + \lambda_{ij}^{XY} + \lambda_{ih}^{XZ} + \lambda_{jh}^{YZ} + \lambda_{ijh}^{XYZ} \quad (1)$$

Where

λ is the overall effect

$\lambda_i^X, \lambda_j^Y, \lambda_h^Z$ are the effects of the single variables on the expected cell count

$\lambda_{ih}^Z, \lambda_{ij}^{XY}, \lambda_{ih}^{XZ}$ are the interaction effects of the couples of variables on the expected cell count;

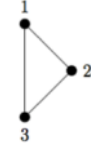
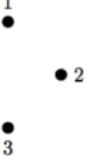
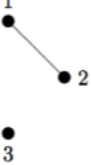

λ_{ijh}^{XYZ} is the three-way interaction effect on the expected cell count.

The saturated model has the same number of parameters as the observed cell counts and, although it always fit the data perfectly, it makes no sense to estimate it. Generalization of the model to the case with more than three variables is immediate. In order to select the appropriate model, the analysis is usually limited to the family of the hierarchical log-linear models, and a stepwise procedure is applied by assuming at each step that the higher interaction term is null.

Graphical Log Linear Models (GLLM) are a way of representing the relationships among the factors of the log-linear model using a graph. GLLMs have two great advantages: from the graph structure it is easy to read off the conditional independence relations and graph based algorithms usually provide efficient computational algorithms for parameter estimation and model selection (Gauraha 2016). Graphical models are completely specified by their two- factor interactions. By the hierarchical principle, if a two-factor term is set to zero then any higher order term that contain that particular two-factor term will be also set to zero.

The following table summarizes the graphical representations of the possible different relationships between (three) variables in a log-linear model.

Table 1 – The Graphical Log Linear models

Model	Dependence	Graph
Saturated model	(X, Y, Z)	
Complete independence model	$X \perp Y \perp Z$	
Joint independence model	$(X, Y) \perp Z$	
Conditional independence model	$X \perp Y \mid Z$	

Log-linear models and their graph representation allow highlighting association between variables, without defining a direction in the relation (there is no difference between explanatory and dependent variable). LR (Likelihood Ratio) or Pearson test are computed to choose the final model, that fit well to the data (Kreiner 1987).

DATA AND EMPIRICAL RESULTS

The objective of this paper is to verify empirically the theoretical hypothesis about the nature of innovation within networking firms and their ability to adapt to the system. In order to get qualitative and declarative data about participants' actual interactions, a targeted survey will produce better results than existing official databases (Ter Wal and Boschma, 2009) because these often do not contain further details on the links or the partners involved. Moreover, the survey-based nature of methodology provides opportunities to gather additional information on the firms that might otherwise be unknown. To this end, in the present paper, data were collected from a CATI survey made in 2015 by Tagliacarne Institute, addressed to SME manufacturing Italian firms, that asked the firms their ability and form to innovate, looking at their networking relationships. The reference period was the time interval 2012-2015. The survey provided original data, as the nature of the answer obtained through the questionnaires is described by the actors themselves. The SME firms were extracted from the CERVED-Infocamere official archive (Italian Chambers of Commerce archive), considering only companies with less than 250 employees, stratified with respect to manufacturing sectors and company's size. The final sample was composed by 3.018 firms.

In the questionnaire, a first introductory section included general basic information of the firms (economic activity, employees, revenue, geographical location, etc.), and the two next sections were devoted to the innovation process applied by the firms and their relationship with territory, institutions and stakeholders.

Innovation is distinguished between its tangible and intangible features (Table 2). Tangible innovations are defined as: the creation of new products or services, the introduction of advanced processes, the purchase of new machineries and software or other new technologies. Intangible innovations, instead, is based on: training activities, new advanced managerial techniques or the adoption of new marketing practices.

Table 2 - Dynamic capability

Dynamic features	%
Intangibles	10.4
Tangibles	35.2
Subtotal	45.6
No dynamic	54.4
Total	100.0

More than half of the interviewed firms have not undertaken dynamic processes during the analysed period and among those that engaged dynamic assets, almost 80% turned to tangible ones.

The notion of network applied in the study includes both, formal collaborative links between companies (i.e. consortia, industrial districts, temporary associations of enterprises, network contracts, etc.) and informal ones, as relations with stakeholders like families or Public Administration.

Information derived from the survey can be matched with that contained in the Cerved-Infocamere database, allowing to have a more in-depth overview of the innovation process of the sampled companies. In this way it is possible to understand how the 3S variables - Skills, Strategies and Stakeholders – may cause the dynamic capabilities of the innovative firms, as previously evidenced by Fig. 2.

The authors consider high skills as the innate or learned ability to apply the knowledge acquired through experience, study, practice or instruction, and to perform tasks and duties required by a given job. Specialization entails focusing on a narrow knowledge that require appropriate skills or talents or abilities. High-skills are difficult to transfer from job to job and they require: 1) specialist knowledge needed to perform job duties; 2) knowledge of particular products or services produced; 3) ability of operating specialized technical tools and machinery. In turn, generic skills are considered as transversal skills or portable skills or soft skills quail: ICT skills; problem solving skills; communication skills; decision making skills; professional or personal skills (e.g. punctually, honesty, self-organization, team work, etc.) (Ganzeboom, 2010).

In the sampled SME firms, innovation strategies are based in half of the cases on the experience of the sector of the entrepreneur and marginally on the skills and know-how of the employees (13,5%). About stakeholder variable, firms create prevalently relations routines with other firms operating in similar industry or with firms operating in services.

This scenario shows firm's profile, in a financial crisis period, that to reach the survival decide to exploit capabilities already known, recombining and integrating their resources (March, 1991). This orientation highlights a condition in which firm has sufficient information about both environmental opportunities and its capabilities. Exploitative firms expect to work within well-established problem-solution frameworks, under which problems and solutions can be clearly defined (O'Reilly III and Tushman, 2008). Organizational attention is focused on existing businesses or existing ways of doing businesses and on employing available information and capabilities to achieve short-term organizational goals and market positions (Chen, 2017).

In the empirical analysis log-linear models and their graphical representations are applied on the observed data, to understand how the 3S variables behave with respect to the capability of the firm to adapt to the system. The same approach is used to verify if "Dynamic capability" and "Networking" interact in the innovation process of the firms.

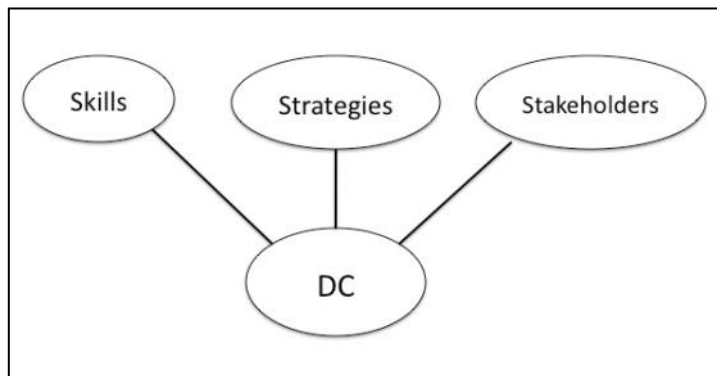
The hierarchical procedure previously introduced in the paper is applied on the data to show how the 3S variables behave with respect to the Dynamic capability (DC) of the firms. Here some early results are presented. In particular, the output of the LR and Pearson tests with their p-values for the final model are reported in the following table (Table 3).

Table 3 – Conditional Log-linear models of DC and the 3S

Statistics	χ^2	df	p-value
LR	299.38	174	0.00000
Pearson	291.42	174	0.00000

The tests suggest choosing the conditional independence model, with DC as conditioning variable. We can assert that the relationships between Skills, Strategies and Stakeholders and the dynamic capability of the firm are all strong and direct, without indirect interaction effects. The 3S variables are driven independently of each other. The graph representation of the identified log-linear model is given in fig. 3, where DC is the conditioning variable, and the 3S are linked through the presence of Dynamic capability.

Fig. 2 – Graph of the relationship between DC and 3S



Therefore, we can affirm that skills, innovation strategies and relationship with the stakeholders will find in the dynamic capabilities of the firms their achievement.

The graphical analysis – supported by the conditional loglinear model – may be applied to empirically verify the complete networking behaviour of innovative manufacturing Italian SME (Table 4).

Table 4: Relating the level of awareness of networking to the creation of dynamic capabilities

dynamic and adaptive applications networking perceptions	tangible dynamic adaptive capabilities	intangible dynamic adaptive capabilities	no dynamic adaptive capabilities	TOTAL
unaware networking	34.4%	9.9%	55.7%	100%
aware networking	40.2%	13.9%	45.9%	100%

The propensity to adapt dynamically to the environment is significantly higher for companies being aware of belonging to a network. All companies prefer to innovate through investments in tangible assets, however, those who are consciously in a network, make relatively higher investments in both, tangible and intangible assets than the other companies.

MAIN FINDINGS

The authors advanced by building and testing a capability-based assessment model to verify the predictions theoretically expressed by the dynamic capabilities framework. Moreover, our model indicates how dynamic capabilities actually correlate to firm innovator profile. Prior theory has posed that these capabilities are composed of many activities, and our results present the activities that were most relevant in terms of their impact on firms' innovation performance.

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THE IMPACT OF THE ENVIRONMENTAL DIMENSIONS ON THE ENTREPRENEURIAL DECISION

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ABSTRACT

The present study, explains the effect of the perception of the global environment in entrepreneurial decision. In order to reach the goal, the first paragraph defines the global environment and three of these dimensions namely uncertainty, complexity and dynamism.

The second paragraph focuses on the importance of cognitive schemas in the behavior of the entrepreneur and later in entrepreneurial decision.

The third paragraph deals with the presentation of a set of hypotheses explaining the impact of the perception of environmental dimensions on the probability to pass to action, prior to outline some conclusions.

Keywords: Perception, environment, uncertainty, dynamism, complexity, cognitive schema, entrepreneurial decision.

INTRODUCTION

During the recent decades, the interest for decision-making has continued to grow. Researchers in the social sciences and more recently in management sciences are interested in the subject of decision making in companies. In entrepreneurship, the decision was studied in the context of entrepreneurial intent having the entrepreneur as main actor. Indeed, the entrepreneurs are called to take daily lots of decisions, concerning the refinement of business ideas, the creation or identification of a niche market, the resolution of technical problems, the acquisition of resources, the recruitment of staff (Davidson, et al, 2003). In addition, the decision-making process is different for entrepreneurs and big companies' managers.

In the big companies, the decision-making process is based on procedures, rules and methodologies; this helps the inter-individual and collective relationships. In the small firms, the decision-making develops around the responsibility of each individual, even if he surrounds himself with councils (Marchesnay, 2002).

The market economy, competitive and global, has the environment in the core of the business activity, as an important variable that contributes to the survival and development of the enterprise. Mercier-Suissa, Gomez et al (1998) find that there is a relationship between the environment and the behavior of

the entrepreneur. Naffakhi (2008) points out that "the entrepreneur grows up in an environment that influences both his development and behavior". In the same way, Fayolle (2007) suggests that entrepreneurs' orientations and behavior are also influenced by specific personal and environmental factors. In addition, Barabel (1996) suggests that the external sources influence strongly the decision-makers' behaviour.

GLOBAL ENVIRONMENT: DEFINITIONS AND DIMENSIONS

Lambert (2007) shows that "the environment of the firm, its current and potential fields of action gain in dynamic and size, becomes more complex while places the decision-maker in an information deficit". The first paragraph is dedicated to define the global environment; the analysis of its dimensions namely uncertainty, complexity and dynamism will follow.

Define the global environment. Long time ago, the environment got different definitions depending on the authors and their original approach. The global environment can be defined by its political, economic, legal, psychological and climatic components (Paturel, 2005). Each of these elements has a specific role depending on the activity that the entrepreneur wants to launch or revive. The perceived global environment is a set of complexes, scalable and often contradictory perceptions. It is an artifact that is only a partial and distorted representation of the real environment (Porter and Millar, 1985). As it is perceived, it can then constitute an "incentive", a call for change or, on the contrary, an obstacle, a barrier to any idea of modification. Based on this, the global environment can be defined in relation to everything that is located outside. This corresponds to the contextual factors that influence the individual in his passage to the act of undertaking. That is why we will deepen our research by presenting some dimensions of the environment namely uncertainty, complexity and dynamism.

The dimensions of the environment. Among the numerous dimensions of the environment, three of them are distinguished, in terms of changes: unpredictable (uncertainty), difficult to identify (complexity) or fast (dynamism). The study will focus mainly on these three dimensions. Other dimensions that could keep the attention are: munificence, volatility, turbulence. Based on Luo (1999), munificence has a very weak predictive power whereas for volatility, it is an essentially objective measure and, moreover, it is similar to uncertainty or dynamism. Thus, he believes that turbulence comes from complexity and dynamism.

The uncertainty.

There are several definitions of uncertainty. Lambert (2007) defines the uncertainty as "the difference between the amount of information held and the amount of information required". Uncertainty, therefore, depends on the level and quality of information held by the decision-maker, his knowledge about a certain situation and the level of confidence had to do estimations and forecasts. In other

words, the uncertainty is related to the state of knowledge. Morris, Hansen, et al., stated in 1995 that uncertainty represents “the lack of information regarding environmental factors”, that makes impossible to predict the impact of decision-making on the enterprise.

Different definitions of the level of uncertainty are presented in the literature, as follows:

a) Courtney, Kirkland et al. (1997) present the permanent characteristics of the environment: information that can be certainly identified, unknown but highly predictable and the residual uncertainty. This results in four levels of uncertainty: F the future is known and perfectly anticipated; F the future presents several known alternatives; F a spectrum of probable solutions is defined using a limited number of determining variables; F no scenario is clearly anticipated. The uncertainty is real, but the different dimensions of uncertainty interact and prohibit any prediction.

b) Lambert (2007) suggests that uncertainty must be understood as a situation resulting from a deficit of information and therefore understanding of environmental evolutions. The following table shows the degrees of uncertainty induced by the environment.

The degrees of uncertainty induced by the environment.		
Environment	Simple / Homogeneous	Complex / Heterogeneous
Static / Stable	almost certainty	Uncertainty surrounded
Reactive / Turbulent	Uncertainty surrounded	expanded uncertainty

Table 1: The degree of uncertainty induced by the environment

Source: Lambert (2007) p4

The complexity

For Marchesnay (1993) a system becomes complex when the number of actors is important and when the relations between these actors are strong and interactive, while Gueguen (2001) suggests that “more the exchanges will be frequent and important, more the system will become complex”. This definition can be transposed to the environment. The exchange between enterprises located in the same region will be frequent and important.

The same enterprises will be able to effectuate relationships with other enterprises located outside their region. The intermingling of relationships will lead to increasing complexity. Therefore, it engenders difficulties since cause-and-effect relationships are difficult to identify.

Atlan (1979) estimates that “complexity is recognized as a negative notion because it expresses what one does not know, or that one does not understand”. The same author affirms that complexity is an “apparent disorder” where there are reasons to assume a hidden order, or again, complexity is an order whose “code is unknown” (Atlan, 1979). Genelot (1992) estimates that complexity corresponds to all phenomena that are partly escape to comprehension and mastery. Kalika (1988) suggests that the complexity of the environment can be measured by technological and scientific complexity and commercial complexity:

- Technological complexity represents the degrees of development of production techniques, their heterogeneity and the scientific level of knowledge needed.
- Commercial complexity is appreciated by the number of competitors of the enterprise, the number of products sold and the number of customers or markets where the products are sold.

The dynamism

The analysis of dynamism is envisaged in terms of degree. Dynamism is the rate of change and the degree of instability of the factors in an environment (Li and Simerly, 1998). Therefore, an environment is considered as dynamic when it is constituted of changing factors frequently and decisions are related to different types of change.

The dynamism of the environment promotes the emergence of behaviors for it (Miles, et al., 2000; Zahra, 1993). The notion of dynamism refers to the difficulty of predicting and anticipating frequent and important changes. Among these changes, Mintzberg (1982) cites government instability, unexpected changes in customer demand, and rapid changes in technology implemented. The importance of the cognitive schema in the perception of the environment is shown below.

The study explains the effect of the perception of the global environment on making the entrepreneurial decision. We have seen that the global environment corresponds to contextual factors which influence the individual in his passage to the act of undertaking. These usually act by provoking a psychological and / or material breakdown that will contribute to precipitate an accurate decision-making (Deschamps, 2000). To make a decision, the entrepreneur must reduce the risk and find adequate meaning in his interpretations. In the context of the following, the definition of the cognitive schema will let people see the importance of cognitive schemas in the perception of the environment.

Definitions of cognitive schemas

Cognitive schemas are defined as "knowledge frameworks built by experience that guide the interpretation of new information and control our action" (Hampson and Morris, 1996). They have an important role in different activities such as planning, problem solving, but also comprehension the texts. According to Beck (1976), the cognitive schemas form the basic structures of cognitive organization; Alford and Beck (1997) explain that schemas contain the knowledge and past experience of an individual. They make it possible to interpret and give meaning to events.

They serve as a model for processing information and directing the behaviors. Thus, the above enables me to give a more comprehensive definition to cognitive schemas as structures that represent the body of knowledge, beliefs, mental representations of an individual on himself and his environment. These

structures guide different processes such as the attention, the perception, the interpretation and the memory.

The importance of cognitive schemas in the perception of the environment

The perception is crucial in the interpretation of the environment. The perception of risk in the context of a changing environment is an element that necessarily holds a preponderant place in the decision-making process. Helene (2008) suggests that "the project is constructed by the interactions between the individuals, the elements of their environment, and the way in which individuals organize these elements to organize the future decision-making". In this sense, the entrepreneur selects the information and available data about his environment. It gives to him the meaning and draws conclusions based on his beliefs about himself and about the world and acts consequently. A simplified representation is proposed in the next diagram (Figure 1).

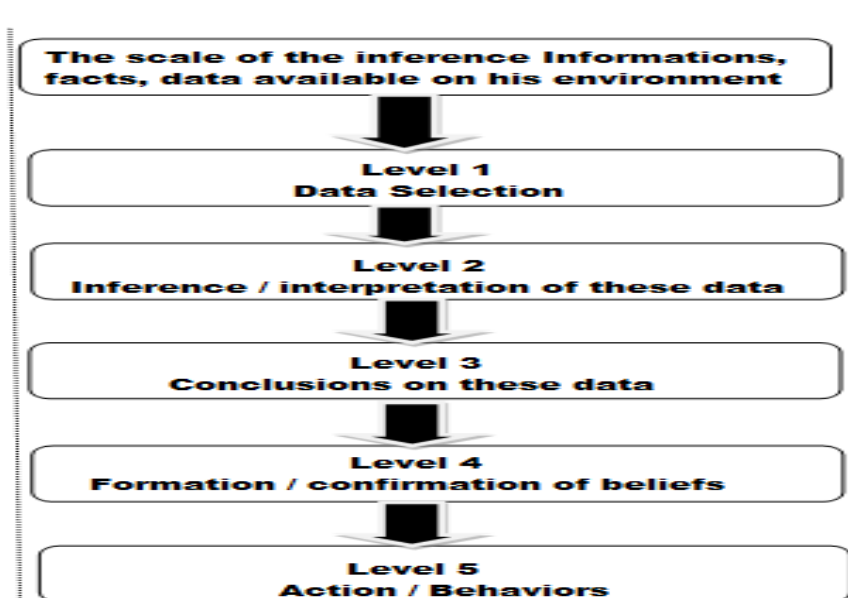


Figure 1. Summarizes the cognitive process

Source: Amar (2008: 42)

After the interpretations of selected data, the entrepreneur goes out with conclusions, and based on them, he creates beliefs that will determine his future actions and behaviors.

In summary, many studies have shown that decision makers with different cognitive schema react differently to a same situation. In the context of the following paragraph, some hypotheses proposed to explaining the effect of the perception of the global environment on the making of the entrepreneurial decision.

THE ENVIRONMENT SIZE EFFECT AGAINST THE ENTREPRENEURIAL DECISION

With regard at the effect of perceived uncertainty on the entrepreneurial decision, Barabel (1996) indicates that external sources of influence strongly modify decision-making behaviors. Paradoxically, in a context of high uncertainty, the entrepreneur must search and analyze information of external origin, but he can only grant limited confidence to these data. Faced to the type of environment and the level of uncertainty, different decisions are possible. The internal state of the enterprise influences the perception of uncertainty. Therefore, "the reaction to the environment can only be made after an interpretation of the environment, if we place ourselves in a subjective perspective" (Gueguen, 2001). Schmidt (1996) will integrate the cognitive character of the actor in order to consider the notion of uncertainty, seen from the perspective of personal judgment. On the other hand, (Gueguen , 2001) affirms that the uncertainty variable has a very important effect on the decision-making process.

Mercier Suissa, Gomez et al (1998) confirm the relationship between the environment and the behavior of entrepreneurs. In a context of uncertainty (the Russian example in the 90s), the unstable environment induces new managerial behaviors. The very strong instability of the Russian context at this time is due to the confrontation with the opening of the market, to price liberalization and the apparition of competition via privatization.

Decision making is largely influenced by the perception of uncertainty. Thus, this perception results from an accumulation of elements resulting, in particular, from the knowledge, from the past lived and of course from the nature of each decision. Or these elements are systematically different according to the individuals.

Courtney, Kirkland et al (1997) indicate that entrepreneurs fearing the risk and think that they are in an uncertain environment, do not trust their instincts and suffer from a decision paralysis. In this case, uncertainty constitutes, for some individuals, a barrier to decision-making. Based on what has already been recognized, we propose the following hypothesis:

H1: The perceived uncertainty of the environment has a negative influence on the probability to pass to the act.

With regard at the effect of perceived complexity on the entrepreneurial decision the general approach emphasizes that many determinants risk influencing the decision-making processes implemented by individuals. These include the characteristics of the decision, the characteristics of the decision-makers and the contextual factors.

The notion of complexity refers traditionally to the number and the diversity of parameters that the entrepreneur must take into consideration in his decisions. Daft, Sormunen et al. (1988) affirm that the enterprise of which environment is highly complex will have great difficulty in predicting its activity.

The difficulty to obtain clear information, from the context, will reduce the quality of the decisions taken. Genelot (1992) affirms that the complexity looks like phenomena that escape our understanding and our control. He suggests that the complex environment is an environment that is difficult to understand and manageable which has a negative influence on the decisions to be made. Naffakhi (2008) shows that even though entrepreneurs have entrepreneurial experience, an entrepreneurial project can reserve surprises, especially in a complex environment. Gueguen (2001) explains that "the complexity introduces difficulties in the legibility of the environment". Similarly, Sammut (1995) finds that the complexity of the environment can lead to difficulties for young business leaders. The entrepreneurs must act quickly facing in a complex environment. The change is a major issue to cope with a situation of instability. Therefore, it is possible to ask the following hypothesis:

H2: The perceived complexity of the environment has a negative influence on the probability to pass to the act.

As concerns the effect of perceived dynamism on the entrepreneurial decision, according to Bruyat (1993), relationships must necessarily be considered contingently in relation to an entrepreneur and to a particular project. A similar characteristic of the environment can constitute an opportunity or a factor favoring the achievement of a project, to be an obstacle for another and not to have any impact on a third. Eisenhardt (1989) considers that decision makers in a dynamic environment have an interest in accelerating their cognitive processing, whose continuous evaluation of information allows for decision-making. Indeed, in dynamic environments, decision makers need to use more information's, to seek a large amount of advice in order to make the right decisions (Priem , Harrison et al., 1995).

The environment may have features that, by themselves, can make impossible a business creation (Bruyat, 1993). Luo (1999) found that dynamism is positively associated with an innovative and proactive behavior by small firms. So, the conclusion is that dynamism of the environment favors the emergence of entrepreneurial behaviors and subsequently the entrepreneurial decision (Miles, Covin et al, 2000; Zahra, 1993). Another hypothesis can be proposed, as well:

H3: The perceived dynamism of the environment has a positive influence on the probability to pass to the act. After presenting the different research hypotheses, we propose the following schema which represents the conceptual model of our study:

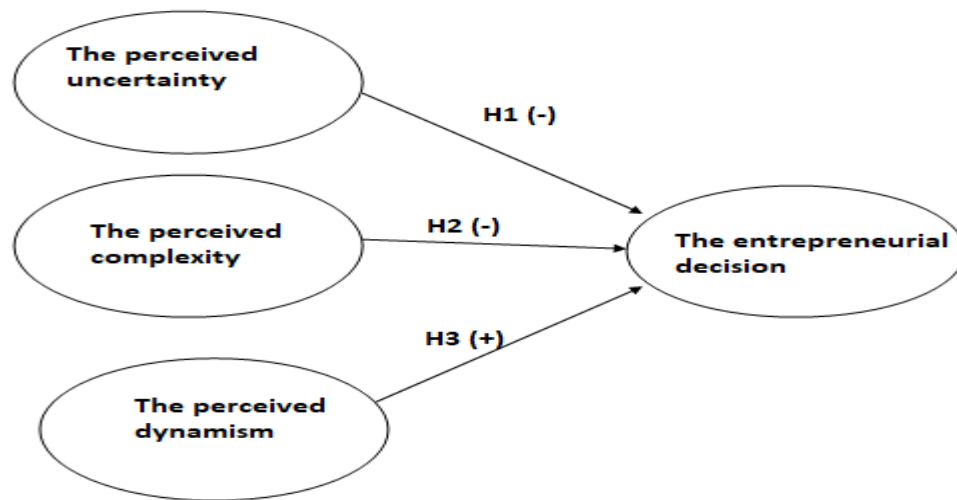


Figure 2. Summary schema of the conceptual model of the study;

Source: author's personal approach and contribution

The objective of this paragraph has relied on the presentation of a model explaining the effect of the perception of the global environment on the entrepreneurial decision and thereafter on the probability to pass to the act, based on the three dimensions of the environment namely uncertainty, complexity and dynamism. The research shows that the decision making is largely influenced by the perception of uncertainty. The uncertain environment constitutes, for some individuals, a barrier to decision-making. Similarly, the complexity introduces difficulties as to the readability of the environment. Finally, a dynamic environment leads to more analysis and innovation by entrepreneurs leading to several entrepreneurial decisions that can increase the probability to pass to action.

CONCLUSIONS

Existing studies on the entrepreneur and decision-making continue to diversify. Researchers agree that personal, circumstantial but also environmental factors such as the Tunisian revolution affect the entrepreneurial decision-making. In addition, some researchers such as Mark (1991) showed the importance of the effects of the environment on the emergence and culmination of the entrepreneurial project. The present study showed that the environment has an important role in the progress of the decision-making process.

The literature review allowed us to verify the role the environment could have in enabling the entrepreneur to make entrepreneurial decision-making. At the level of the second paragraph, first we defined the cognitive schemas, then we showed their importance in the perception of the environment. We have found that the entrepreneur grows up in an environment that influences his development and

his behavior. In this case, a schema is formed, probably simplifying and source of bias, but allowing the action.

In the third paragraph, we tried to verify the effect of environmental dimensions on decision-making and subsequently on the probability to pass to the act. The theoretical construction allowed us to sustain that uncertainty and perceived complexity have a negative impact on entrepreneurial decision-making whereas perceived dynamism has a positive impact on entrepreneurial decision-making.

It is to believe that the present paper could be a source of information and evaluation for political and economic leaders on the role of the perception of the environment in growth, especially the economic growth. Hence, they can take into account the present research to guide in a different way their incentive policies to the creation and recovery of companies. Economic leaders could also use the study to developing strategies and making better entrepreneurial decisions.

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CUSTOMER SATISFACTION IN THE HOSPITALITY INDUSTRY

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ABSTRACT

Satisfying customers is a never-ending process. The aim of satisfying customers is to retain them, as customer retention directly reflects on the hospitality industry's profit. Though most businesses have a good c between customer satisfaction and customer retention, the rate of retention may be influenced by high market competition, lack of differentiation among services/products, lack of interest among customers about that services/products and lack of involvement among customers with services/products. Thus, going beyond customer satisfaction leads to high customer retention, otherwise called customer loyalty.

The success of every organization is underscored by the satisfaction of its customers. This is especially true in the hospitality sector where the success of a company is dependent on its ability to meet its customers' needs and expectations. This entails that all staff, to avoid trouble-causing situations, must be well trained in areas where performance has a possibility of falling below expectations. To sustain progress in the hospitality sector, satisfying the customer in all respects must be the prime and essential focus of management. Based on a review of the literature on customer satisfaction, this study discusses and examines how customer satisfaction benefits the hospitality industry, factors that influence customer satisfaction, major considerations for improving customer satisfaction and strategies for improved customer satisfaction. Moreover, using Kano's model of customer satisfaction, this study examines in detail how attributes of customer satisfaction can be divided into three categories: threshold, performance and excitement attributes. These attributes play an important role in encouraging customer satisfaction and loyalty, thereby ensuring the long-term success of a business in the hospitality sector.

Keywords: customers, customer satisfaction, customer loyalty, quality service, Kano's model, threshold, performance and excitement attributes

DEFINITION OF CUSTOMER SATISFACTION

According to Oliver (1981, p.27), satisfaction is defined as "the emotional reaction following a discontinuation experience". In terms of consumerism, the concept of "customer-satisfaction" has

become popular in the recent past. In general, customer satisfaction is the measure of a customer's attitude about a product or service or brand. Getty and Thompson (1994, p. 9) describe customer satisfaction as a "summary psychological state experienced by the consumer when confirmed or disaffirmed expectations exist with respect to a specific service transaction or experience.

Ramaswamy (1996) states that the general representation of customer satisfaction can be reached through the disconfirmation theory approach, which relates the satisfaction of the customer before and after the purchase/service. Oliver (1996) writes that disconfirmation theory applies to the satisfaction or dissatisfaction of the customer in regards to the difference between the actual perceived performance and the expected performance. Customer satisfaction can also be defined as the degree to which a company's service or the product of a company meets the requirements of the customer. Increased competition in the business environment forces companies to concentrate on customer satisfaction. The abstract concept of customer satisfaction can vary from person to person and from service to service or product to product. It is a state of internal satisfaction that depends on certain factors that are physical or psychological. These factors directly reflect on customer satisfaction behaviors like customer return rate and word of mouth recommendation rate.

Basically, customer satisfaction is a psychological state. Berry (1991) formulated ten factors called quality values, which influence the behavior of customer satisfaction. These factors of satisfaction are quality, timeliness, easy accessibility, departmental teamwork, commitment in service, value, efficiency, environment, front line service behavior and innovation. These factors lead to continuous improvement and the development of an integrated architectural model for customer satisfaction.

NEED TO CONSIDER CUSTOMER SATISFACTION AND ITS BENEFITS

Is customer satisfaction essential? This is a rhetorical question, but the answer to this question is very clear. Due to the immerse competition in the market, service loyalty has become a rare commodity. So, to gain customer loyalty, the hospitality industry has to be conscious of customer satisfaction because its intention is not only to send the customer away happy, but also to have them come back and utilize the product or service again. Present day customers are smart. They are aware of the power they have to choose a service provider. In today's world, due to enormous competition, customers have many choices and they seldom tolerate poor levels of service/product, unless it is a question of monopoly situations; Otherwise, their demand for high levels of service/product seems to be unceasing. Thus, satisfying the customer in all respects must be the prime focus of the hospitality industry and has become highly essential to improvement of the business.

The need to meet customer satisfaction may vary depending on the type of service/product and the market competition for that service/product. To improve customer loyalty, an industry has to

improve customer life cycle management by enhanced Customer Relationship Management (CRM). There are many benefits to companies/organizations by measuring customer satisfaction. Some of these benefits lead to improvement in certain areas like, identifying service problems faced by the customer, focusing more on the factors that may improve these problem situations, determining the specific needs of the customers and identifying the need for new types of service/product that would improve the business. Thus, giving importance to customer satisfaction not only improves current business activity, but also leads to insight into new business activities that in turn lead to more customer satisfaction.

FACTORS INFLUENCING CUSTOMER SATISFACTION

Knowing the needs and benefits of customer satisfaction, a hospitality industry must identify the major factors that influence or drive the satisfaction of customers. These factors can be listed as trust, transparency and togetherness. The attributes of trust are comprised of customer's belief that the product is pure, belief that the service complies with the service commitments and agreements, the quantity of the product/service is correct, the service/product is available to the customer when he/she wants it and the service is regular. The factors that relate to transparency include consistency of the service/product at all levels and time and, consistency of the service/product with all trading policies and terms. Finally, the attributes of togetherness include the attitude of the company towards the customer, the feeling that the hospitality industry is supportive and guiding, the customer's feeling that the company or organization understands his/her needs, the customer's feelings that the hospitality industry safeguards his/her interests and, the customer's feelings that the hospitality industry there is a personal connection or bond.

MAJOR CONSIDERATIONS FOR IMPROVED CUSTOMER SATISFACTION

Improved customer satisfaction and customer loyalty in the hospitality industry, is an essential behavior and depends on the involvement of the entire hospitality industry. Every aspect and strategy of the hospitality industry has to be focused on the customer. The essential factors that govern this customer satisfaction are:

- Measuring the loyalty and satisfaction of the customer
- Linking the goals, strategies and vision of the company or organization so as to be more focused on the customer
- Authorizing and completing the improvement projects
- Setting up metrics for employee recognition and rewards
- Managing these activities with proper program management techniques

The basic aspect that has to be considered in improving customer satisfaction is the measurement of customer satisfaction. This is best done by identifying barriers and gaps in the service. Prominent barriers or gaps may include lack of product knowledge, misleading communication and outdated policies. These gaps can be best identified by the RATER method. Thus, the major consideration for improved customer satisfaction includes how the product or service fulfills the customer's experience of acquiring it.

STRATEGIES FOR IMPROVED CUSTOMER SATISFACTION

One of the major strategies for improved customer satisfaction is the attitude of "Customer First". This attitude toward customer service comprises of management strategies and marketing strategies. Marketing strategies towards customer satisfaction include aspects of how the marketing objectives will be achieved. Marketing objectives like retaining customers, increasing the number of customers and acquiring new customers can be achieved by following the strategies of 4C's strategies, as described below:

1. Communication – talking to customers will help them to express their opinions.
2. Cost to satisfy needs – the additional cost spent to acquire customer satisfaction is generally not very high compared to the cost of providing basic service.
3. Customer needs – guest/customer needs must be met and their satisfaction has to be maintained.
4. Convenience – making the service more accessible so that the customer will voice his or her concerns.

Management strategy has to be based on six basic customer needs: fairness, understanding and empathy, friendliness, information, control, options and alternatives. If management strategies satisfy these basic customer needs, they will be reflected in the customer's behavior, like buying more additional items, buying from the specific hospitality industry again and again, spending more on that product or using the chosen hospitality industry's facilities. As a result, the customer becomes easy to deal with, the customer spreads the word about the hospitality industry's good reputation and that particular product or service, customer, the customer is less bothered about the price of future purchases, and the like.

Management strategy has to consider the process guidelines for adapting the hospitality industry to the needs of the customer. This adaptation leads to a win-win situation. The general guidelines for the customer satisfaction process are as shown below:

1. **Be Practical.** Address the exact problem situation by managing the existing goals with the help of a strategic plan, a marketing plan, lean management, total quality control, customer driven

quality, balanced scorecards, focusing on customer value, customer service, customer value and retention, learning the concerns of the customer and, learning the improvements that will be appreciated by the customer.

2. Involve Managers. Involve managers more in the process of customer satisfaction by identifying specific managers for specific services. Ask the touch point managers about the needs of the customers.

3. Conduct Actionable Research. Conduct research and take actions based on the results of the research. The research has to provide accurate information, the statistical results of this research have to be reliable and the results and the corresponding recommendations have to be passed on to the front line managers.

4. Select Leverage Points. Choose leverage points so as to protect or improve low satisfactory items and promote or differentiate highly satisfactory items.

5. Initiate Satisfaction Projects. Start customer satisfaction projects in each department by charting out the missions and rationales and computing the estimates of benefits and costs. Also, these projects need to have certain success metrics and need authorization to proceed.

6. Coordinate Satisfaction Projects. After these customer satisfaction projects are begun, they need to be coordinated by selecting project managers and teams, locating funds, implementing customer satisfaction projects, auditing the progress and documenting the progress.

7. Manage a Satisfaction Project. Manage the overall customer satisfaction program by linking the projects under each department, tracking the overall cost benefit ratios and success metrics by audits.

CUSTOMER SATISFACTION INCREASES CUSTOMER LOYALTY

Satisfying the customer is a never-ending process. The aim of satisfying customers is to retain them, because customer retention directly reflects on the hospitality industry's profit. Though most businesses have a good association between customer satisfaction and customer retention, the rate of retention may be influenced by high market competition, lack of differentiation among services/products, lack of interest among customers about the services/products and lack of involvement among customers about that services/products. Thus, going beyond customer satisfaction leads to high customer retention, otherwise called customer loyalty. The understanding of the correlation between customer satisfaction and loyalty has led to the need for improved service/business performance. This can be best done by following the profit chain models. These profit

chain models, depict the relations between service commitment, customer satisfaction, customer loyalty and the business results. Most organizations go for calculations that specify the required amount of service commitment, amount of employee satisfaction and the corresponding amount of customer satisfaction and profit.

Richard (1996) defines customer loyalty as “A deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future despite situational influences and marketing efforts having the potential to cause switching behavior”. According to Jacoby and Chestnut (1978), the psychology behind loyalty is manifested not only in a customer coming back for the service or buying again and again. They say that an analysis of customers’ beliefs show that the customer’s choice of a hospitality industry depends on the comparison of a company’s qualities with that of the competitive alternatives. Customer loyalty pays the hospitality industry in terms of value, word of mouth recommendation, and frequent visits to the hotel.

There are various factors that affect the loyalty of customers. These factors differ according to the service, brand or product. These factors are as listed below:

1. Customer satisfaction and service quality – this is the basic factor that leads to customer loyalty. The quality desired by customers can be either materialistic or un-materialistic. For customer satisfaction to turn into loyalty, the satisfaction must be cumulative or more frequent. Customer satisfaction creates a sense of delight and emotional affinity towards the service/product.
2. The brand name or image of the hospitality industry plays an important role in retention of customers. The image of the company or the organization is due to the positive effect of the perceived service.
3. Customer’s value towards a company -- value is the result of the service rendered to customers and occurs when customers feel that they have received more for what they have paid. To create a positive value about a company, the service quality has to be increased.
4. Differentiable services – when the services of the organization are excellent and are noticeably different from others, then the service/product becomes comparable with alternatives. This differentiable service attracts the customer and the loyalty increases.
5. Being accustomed to a hospitality industry – it becomes easy for the customer to rely on the service/product of a hospitality industry. This also implies that the customer does not opt for any alternatives.
6. Competitive market conditions – the customer’s buying capacity depends on the market conditions. If there is a monopoly, then the customer may tend to buy a product or alternatively may refrain from buying it.

7. Rewarding the customers – one way of inducing customers to come back again is by providing prizes or rewards or price advantages in the future.

Thus, customer loyalty results from very high levels of customer satisfaction. Customer satisfaction is the heart of customer retention and hence customer satisfaction must be improved.

COGNITIVE THEORIES ON CUSTOMER SATISFACTION

The literature available on customer satisfaction is wide and much of it is based on cognitive psychology. Pizam and Ellis (1999) state that there are nine theories that use cognitive psychology to explain the concept of customer satisfaction. A few of these theories include those of assimilation, attribute, equity, comparison levels, expectancy- disconfirmation, contrast, assimilation-contrast and the like. According to Yuksel and Yuksel (2001), in all these theories customer satisfaction is judged with respect to the standards of the value precept. According to the value precept, the satisfaction of the customer is directly related to the value and desire of the customer. Accordingly, the expectation-discontinuous theory, the standard that corresponds to the value precept, is based on the customer's pre-purchase expectations. In terms of the theory based on comparison levels, the standard under the value precept are the norms based on experiences. And for equity theory, customer satisfaction corresponds to the comparison of the input and output variables. Kievla, Inbakaran and Reece (1999) state that the most important theory regarding customer satisfaction based on cognitive psychology is the expectancy disconfirmation theory. This theory highlights that the purchase decision of the customer depends on customer's expectations about that particular service/product. After purchasing or experiencing the product/service, the outcome or experience is compared to the previous expectation. If the customer's experience meets the expectations, then confirmation is said to have occurred. If there are negative differences between the actual experience and the expectation, then disconfirmation occurs due to dissatisfaction. Also, if the experience exceeds the expectations, then positive disconfirmation is said to occur according to Pizam and Ellis, (1999).

According to Churchill and Surprenant (1982), there are four conceptual constructs that embrace the disconfirmation paradigm. These constructs are:

1. The customer's expectations are reflected as anticipated performances. The customer's decision about performance relies on different types of expectations.
2. The major standard for assessing the disconfirmation is performance.
3. The difference between the two variables, the expectation and the performance, is reflected as the disconfirmation variable.

4. Customer satisfaction is an attitude that is the sum of satisfaction with different contributing factors.

The relation between disconfirmation due to satisfaction or dissatisfaction is assumed to be linear. This proposes a specific size and direction of discontinuity between the performance and the customer's decision. However, some assimilation theorists do not agree with this linear relation. Kivela, Inbakaran and Reece (1999) have developed a model called the Return Patronage model. Based on the social, psychological and cultural concepts of the expectation disconfirmation theory, Kivela, Inbakaran and Reece have defined three variables, namely the input variables, the process variables and the output variables. The input variables relate to the social and psychological factors and can be identified as gender and age. The process variables are related to expectations and performances due to the input variables. The output variables relate to the outcomes of customer experiences and tend to affect customer return behavior.

According to Cadotte, Woodruff and Jenkins (1987), the customers form their own standard based on the perceived service after experiencing the performance of a specific service/product. They add that customer expectations are the standard by which to judge the performance of a service/brand in focus. They also explain that customers tend to assess the service performance based on the level of fulfillment of their needs and requirements. These standards developed by the customers are based on the perceived service which can be classified into brand-based norms, experience-based norms and product/service-based norms. Among these, the first standard to reflect performance is the experienced based norms. The second standard that reflects performance is the brand-based norm and finally, the third standard that reflects performance is the product/service-based norm where the customer already has an image of that particular product/service.

In some situations, there may be problems associated with the application of expectancy-confirmation theory, write Yuksel and Yuksel (2001). Such situations arise when the customer has no prior knowledge about the service/product and the brand and thus forming expectations becomes difficult. Also, in certain situations, the level of standards used by customers may differ. Some difficult customers may have ideal expectations by which to frame the standards, while some tolerant customers may use minimum standards to assess the standard. In rare cases, it happens that some customers are happy even if their expectations are not satisfied. Another problem is the time at which the measurement is taken. Carman (1990), (cited in Yuksel & Yuksel, 2001), says that the measurement of expectations has to be done before the actual experience, because the customer may change his/her expectations after the actual experience. But Parasuraman, Zeithaml and Berry (1988), (cited in Yuksel & Yuksel, 2001) say that measurement of expectations has to be done after the actual experience.

THE CUSTOMER SATISFACTION MODEL

The most common models for representing customer satisfaction are Kano's model of customer satisfaction and the SERVQUAL Model. While the concepts of the SERVQUAL Model have been discussed elsewhere in great depth, the Kano model will be explained here. According to this model, the attributes of a service/product can be divided into three categories, namely threshold attribute, performance attribute and excitement attribute. For a service/product to be competitive, the service/product has to meet the basic threshold attribute, it has to maximize the performance attributes and it has to provide excitement attributes as much as possible.

1. Threshold Attributes. Threshold attributes are the most basic or the must-be attributes of a product. These attributes cannot be considered as criteria for service/product differentiation. Improving these attributes does not diminish the returns from the customer in terms of their satisfaction. However, the absence of these basic or must-be attributes may lead to extreme levels of customer dissatisfaction. These threshold attributes are not generally included in the Quality Function Deployments (QFD) and a service/product cannot be rated by the threshold or the basic attributes.

2. Performance Attributes. Performance attributes are those attributes that lead to better customer service and satisfaction. Most of the verbal needs of the customer come under this category. These attributes add weight to the service/product concept. The additional price that a guest wishes to pay for the service/product depends on these performance attributes. The excitement attributes are not the verbal demands/needs of the customer but are something unexpected that may lead to a very high level of customer satisfaction. The absence of these attributes does not lead to customer dissatisfaction, rather their presence adds to the satisfaction of the customer.

3. Excitement Attributes. Excitement attributes intend to satisfy the latent needs of the customer, of which the customer himself is unaware. Thus, if a hospitality industry addresses these excitement attributes, then the service/product of that hospitality industry will provide a competitive advantage. Addressing the unknown needs or latent needs of the guests will lead the hospitality industry to success, along with the contribution by the essential threshold attributes.

Apart from these three major attributes, discussed under Kano's Model (Kano, 1984), there may be some other attributes. These attributes cannot be classified as they do not contribute to customer's satisfaction or have less consequence in satisfying the needs of the customer.

The analysis of the Kano Model is generally done by asking the customer two different questions. These questions rate their satisfaction level for a specific attribute being present in the chosen service/product and rate their satisfaction level for a specific attribute not present in the chosen service/product. Generally, customers express their rating by choosing a specific response like satisfied, dissatisfied, and neutral or even do not care. Each of the attributes of the Kano Model may

receive a different response. The customers' answers have a severe impact on the success of the service/product. The analysis of these attributes with respect to their responses has to be done by considering a trade off against the cost. This analysis by cost gives a level by which to prioritize the responses and attributes that give greatest returns about customer satisfaction. At the same time, these attributes should not be neglected, as they may play a critical role in service/product development, which indirectly influences customer satisfaction. The analysis of the performance and excitement attributes provides valuable information that acts as the input to the Quality Function Deployment.

The models for customer satisfaction can be viewed as a macro framework that links the 2 Ps (performance and people) of hospitality services which in turn reflect the traditional 4Ps (place, product, price, promotion) of marketing theories. Though this framework for customer satisfaction seems simple, it encapsulates all the essential features of marketing. Based on the analysis of the customer satisfaction with an appropriate model, a hospitality industry can

1. Make efforts to exceed the expectations and requirements of the guest so as to provide a superior value of service against the perceived value of service.
2. A mass potentially satisfied customers into a relevant market share.
3. Using scale of economies, the market share can be leveraged to high profitability, the effects can be experienced.

The Customer Satisfaction Models can also be used to link the marketing concepts to the business concepts. The major correlations can be identified as,

1. The customer share in the market has a direct relation to the perceived value. The relative perceived value has a top box effect as it aims at very high levels of satisfaction,
2. The process of moving the satisfied customers to a state of highly satisfied customers may be costly and is expected to be constrained by the economics of the S-curve,
3. Hospitality industries can achieve very high shares in the market by the combined effect of scale economies and the effect of the experience curves and, market clouts.
4. A hospitality industry can achieve profitability by capitalizing on the market position by initiating effective operations.

CUSTOMER SATISFACTION AND SERVICE

Service quality and customer satisfaction play a crucial role in the success of any business. These concepts have been under research for quite some time and are associated with the behaviors of the customer, like purchase choice, loyalty intention, spreading positive word of mouth and, intention of

complaint and referrals (Olsen, 2002; Kang, Nobuyuki & Herbert, 2004). There has been vast research in the past on the relationship among the related variables like service quality, customer satisfaction, behavioral intentions. These have all been related to moderation, antecedents and other behavioral consequences. Customer satisfaction directly reflects guest retention. It is a common fact that customer replacement is costlier in terms of advertising, promotion and sales. Thus, it would be more expensive to win new customers than to retain the existing customer (Ennew & Binks, 1996; Hormozi & Giles, 2004). Customer retention rate has a positive effect in terms of word of mouth, decrease in price sensitivity, transaction cost and the like (Reichheld & Sasser, 1990).

Most researchers view customer satisfaction as a feeling of disappointment or happiness resulting from the comparison of the perceived service performance and the expectations. According to Boulding et al., (1993) there are two common conceptualizations of customer satisfaction, namely transaction specific satisfaction and cumulative satisfaction. Cronin and Taylor (1992) say that transaction specific satisfaction relates to the evaluation of the customer's reaction to a specific service. Cumulative satisfaction relates to the evaluation of the customer's overall experience from beginning to the date of evaluation.

As already mentioned, customer expectations and perceptions play a great role in the services sector. Perceived service quality is mostly the magnitude of variation existing between guest expectations and actual service quality (Parasuraman, Zeithaml & Berry, 1994). Though customer satisfaction is of immense importance in the hospitality industry, the degree of variation between customer expectations and the quality of service performance largely determines the satisfaction garnered by a customer from a service transaction. Typically speaking, customers regard the rendered services to be of high quality when the scope of extended services goes beyond customer expectations in magnitude and finesse. Herein comes the role and the relevance of the optional services offered by the hospitality industry. The hospitality facilities that offer a wide range of optional services, which tend to be in tandem with deep-seated customer expectations and desires, usually end up accruing high levels of service quality and customer satisfaction -- not to speak of word-of-mouth publicity and good will generated by satisfied customers that often happen to be the most potent business generators. Hence, if service-oriented industries take care to match their service quality with the expectations of their customers, customers usually end up being satisfied and pleased. The thing to keep in the mind is that customer service perceptions cannot be generalized or considered static. Different customer segments have different service expectations. Besides, customer expectations do alter with time and place and are never stagnant or the same. Therefore, in the hospitality industry, inertia and complacency is disastrous. Keeping in mind fast changing customer perceptions, the hospitality industry in general and the hospitality sector must always be prepared to adapt to change. The inability of the tourism

and hospitality sector in any nation to accommodate change may have a debilitating impact on the national economy, especially in the case of nations like Cyprus where tourism and hospitality is the primary employment and revenue generator.

The worst thing that can happen in a hospitality business is the inability of servers to match their service quality to customer expectations. Without a doubt, shoddy services translate into unhappy, unsatisfied and elusive customers and lost business opportunities. However, the silver lining to this cloud is that service managers can exploit the feedback given by unsatisfied customers to rectify the faults or lacunas existing in their service networks. This gives a hospitality business the chance and an opportunity to correct its policies and practices. While having unsatisfied customers is unacceptable. It is even worse to be oblivious of the views and observations of the unsatisfied customers, as this negates all possibility of correcting the service framework within a hospitality business to enable it to deliver better service quality. Thus, hospitality industries and service managers should not take for granted or simplistically assume that unsatisfied customers will always voluntarily offer a feedback. On the contrary, they must take proactive steps to gather feedback from most of the unsatisfied customers. Studies have found that the negative publicity generated by unsatisfied customers is always much greater in magnitude than the positive publicity extended by satisfied customers (Vanderleest & Borna, 1988). Therefore, it certainly makes sound business sense to be actively aware of customer perceptions and expectations, especially regarding the unsatisfied and displeased customers.

CONCLUSION

Due to increasing competition in the hospitality industry, it is essential that the prime focus is on customer loyalty and customer satisfaction to ensure repeat customers. The factors that drive customer satisfaction are trust, transparency and togetherness. When these factors are met, customers feel that an organization has their best interests at heart. However, to ensure customer satisfaction, gaps and barriers in the products or services need to be identified and addressed. This can be done by applying marketing objectives such as retaining customers, increasing the number of customers and acquiring new customers and employing a management strategy that considers six basic needs: fairness, understanding and empathy, friendliness, information, control, options and alternatives. Using Kano's model of customer service satisfaction is one way to elicit from customers their needs and expectations. Using questionnaires, an organization can ascertain customer satisfaction levels regarding threshold attributes, performance attributes and excitement attributes. By analyzing customer satisfaction, a business or organization can take into account the needs of the customers and

make the effort to exceed the expectations and requirements of the guest, amass a greater number of satisfied customers and increase profitability.

As noted earlier, it is worth keeping in mind that customer replacement is costly to a business or organization in terms of advertising, promotion and sales. Accommodating customer's expectations and desires are the strongest business generators and are the means to ensure customer retention. At a time of increased competitiveness, the hospitality industry should be prepared to make changes that take into consideration customer satisfaction, thereby fulfilling customer's needs and desires.

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DEVELOPING AN ORGANIZATIONAL CULTURE IN A HOTEL

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ABSTRACT

The profession of hotel management is one of the most challenging occupations in the hospitality industry. The success of a hotel manager in the hospitality industry is determined by many specialized skills such as planning, communicating, decision making, recruiting, delegating and knowledge. A successful hotel manager's main objective is to be able to achieve the highest level of service and the highest profitability. But before any successful hotel manager can develop and create this strategy, a manager must understand how organizational culture in a hotel is developed.

Wheelhouse (1987) defines organizational culture as "the learned attitudes, behaviors, and traditions that make up the human environment of the workplace and determine how work is done. It's manifested in shared customs, traditions, beliefs and norms." He goes on to say that "It's this culture that makes each organization unique, gives its membership a sense of identity, and ultimately may determine its success or failure." This culture needs to be established by a hotel manager in order to make its hotel unique and give it its identity. Ultimately, it may determine the hotel's success or failure.

In order to develop the organizational culture in a hotel, certain points should be considered: how authority and responsibility are distributed and who makes decisions; the manager's role in the culture; style of management; and how values are put into practice.

Keywords: organizational culture, managing, delegation, responsibility, communication, Bull's Eye Structure.

ORGANIZATIONAL STRUCTURE

Hotel manager's role

The profession of hotel managing is one of the most challenging occupations in the hospitality industry. The success of a hotel manager in the hospitality industry is determined by many specialized skills such as planning, communicating, decision making, recruiting, delegating and knowledge. Furthermore, a hotel manager will have several objectives

1. To make the guest personally welcome. This involves both a friendly manner toward the guest and a positive atmosphere among the other hotel employees. To make things work for the guest the food has to be served hot or cold according to the menu design and on time. Beds and rooms must be cleaned and hygienic.
2. To make sure the operation will go on providing service and making a profit for the organization. In the hotel business, portion sizes are related to cost and menu and room prices are related to building and operating costs. This ensures that there will be a good chance that the cost of the operation will be recovered, and enough additional income will be provided to pay back money borrowed to establish the hotel. Additionally, it will provide a return to the owner who risks building the hotel establishment.

Therefore, a hotel manager in order to accomplish the above objectives must establish an organizational culture that will lead to good relations between employees and guests.

In addition to the above, a manager must state its philosophy and values which it will be operate.

Statement of philosophy

To be successful and effective, a hotel manager must have a statement of philosophy and values by which he/she will operate. This philosophy statement, sometimes called a mission statement, should embody a worthy goal, because employees want to be part of something important and valuable. It should also rouse the enthusiasm and touch the hearts of every member of the hotel. It must be believable, realistic, and easily communicated to all levels of management within the hotel (see Fig. 1).

Unfortunately, in general, hotel managers, in Cyprus, do not have a mission statement. Usually, their commitment is focused on presenting to their directors and stockholders the past month's financial report. However, their commitment should be on focusing the needs and desires of their guests, improving their products and services, hospitality, etc. Today, this commitment and emphasis are often missing in hotels. The result is that there are severe problems related to tourism in the Cyprus Tourist Industry.

Hilton's Corporate Mission

To be recognized as the world's best first-class hotel organization, to constantly strive to improve, allowing us to prosper as a business for the benefit of our guests, our employees, and our shareholders.

Fundamental to the success of our mission are:

PEOPLE

Our most important asset. Involvement, teamwork, and commitment are the values that govern our work.

PRODUCT

Our programs, services, and facilities. They must be designed and operated to consistently provide superior quality that satisfies the needs and desires of our guests

PROFIT

The ultimate measure of our success - the gauge for how well and how efficiently we serve our guests. Profits are required for us to survive and grow.

With this mission come certain guiding principles:

QUALITY COMES FIRST

The quality of our product and service must create guest satisfaction, that's our No. 1 priority.

VALUE

Our guests deserve quality products at a fair price.
That is how to build business.

CONTINUOUS IMPROVEMENT

Never standing on past accomplishments, but always striving - through innovation - to improve our product and service, to increase our efficiency, and profitability

TEAMWORK

At Hilton, we are a family, working together, to get things done.

INTEGRITY

We will never compromise our code of conduct
- we will be socially responsible -
We are committed to Hilton's high standards of fairness and integrity.

Fig. 1. Sample Statement of Philosophy. Courtesy of Hilton Hotels Corporation, Beverly Hills, California

Values

The values held by hotel management must be considered a key factor in determining whether or not policies and practices can and will be unified. No discussion of integrating an organizational culture can be complete without considering these values and the way they are transmitted. These values must reinforce the hotel's beliefs and goals.

For instance, in a service business, qualities such as teamwork, initiative, showmanship, responsiveness, cleanliness, and creativity are the kinds of values that determine the levels of service, quality, and productivity. These values either do or do not give employees a sense of confidence in many different Human Resource Management practices. Employees will not continue to be emotionally involved in the affairs of the hotel business if their contributions are not respected by their managers. Similarly, employees cannot be expected to be actively committed to their hotel if the hotel does not show commitment to them.

Therefore, the institutional commitment must be rooted in the sincerity and durability of the values of the hotel management; managers who adopt expedient solutions at the expense of employees cannot expect employee commitment in return.

CREATING THE ORGANIZATIONAL CULTURE

Organization structure

Organization can be defined as what can be designed, built, and formalized to achieve the objectives of the property. Often, the objectives of the property are not clear, with the result being that the organization presents in a rather haphazard way.

For this reason, the successful hotel manager in developing objectives within the hotel must involve and inform other employees so as to encourage them to actively contribute to the success of the plan. In order to accomplish this, the hotel manager must apply Management by Objectives (MBO) which is a "planning technique that is dependent on participation from employees at all levels." This means managers down to line employees throughout the hotel jointly discussing their departments' individual operating objectives.

This organizational structure should be built and organized by a successful hotel manager, because the structure plays an important role in integrating the culture within the organization. It will determine the level of service that the hotel management will give to the expected guests. As Vallen and Abbey state (1987), "Without the building blocks, there is no hotel; without the organization, there is no hotel company".

Delegating responsibility and authority

In order for there to be a good organizational culture within the hotel, the hotel manager must define clear lines of authority and responsibility through its basic functions: line and staff function, functional and advisory authority, unit of command, and span of control.

Responsibility

Responsibility is defined by Vallen and Abbey (1987) as “the obligation of a subordinate to perform as someone with authority has directed.” This means that every member of the organization is responsible for the function or tasks that he or she has been assigned.

Delegating or distributing responsibility to employees is a crucial management manager quality. Delegation requires that a manager allow the subordinates to work independently and, in turn, hold them responsible for the function assigned.

Authority

Authority is expressed by Vallen and Abbey (1987) as “the right to exercise power in order to meet the responsibilities that have been assigned.” A hotel manager must delegate authority to maintain subordinate management and supervisory jobs and keep employees engaged and excited about their work by giving them increased responsibilities. For this reason, the authority given must be commensurate with responsibility so that the hotel manager will be certain that those responsibilities have the authority necessary to carry them out.

Authority and responsibility should be delegated as far down the organizational structure as possible to create and shape the best culture among all employees. Therefore, the hotel manager must delegate authority and responsibility to their subordinates for the sake of efficiency and development of management. Those who fail to assign responsibility and authority will end up doing the jobs themselves instead of managing others.

THE ROLE OF THE ORGANIZATIONAL STRUCTURE IN SHAPING THE CULTURE

Organizational structure plays an important role in creating the culture in a hotel. To succeed in this, a hotel manager must distribute and delegate authority and responsibilities to the following functions:

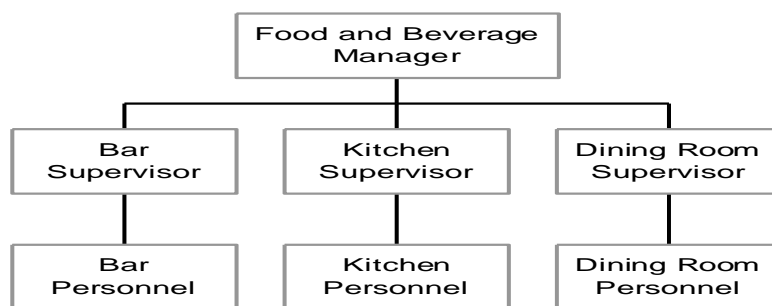
1. Line Function and Staff Function
2. Advisory and Functional Authority
3. Span of Control
4. Unity of Command

Line function

As expressed by Wheelhouse (1987), the line's or operating department's primary responsibility is "to carry on the functions that directly fulfill the company's goals." To accomplish this, the line authority must pass from one employee to another in a direct line from the top to the bottom of the organization. For instance, the bar supervisor, kitchen supervisor, and dining room supervisor report to the food and beverage manager and, in turn, supervise subordinate workers, as shown in Fig. 2. In contrast, a direct unbroken line of authority runs from, say, bar personnel to the food and beverage manager.

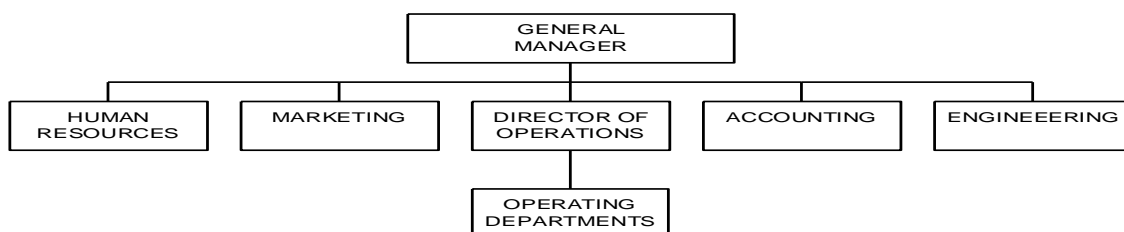
The work of line employees, therefore, directly affects guest service at all levels.

Figure 2. Organization Chart for a Hotel Restaurant

*Staff function*

In contrast to the line function, the staff function's major role is to support, assist, and advise the operating departments. For instance, the personnel manager acts for the manager in their area of specialty. This staff person not only provides a manager with his/her expert advice, but he or she acts for him or her and for the other line people by interviewing and screening applicants and maintaining records. In this act, however, the personnel manager functions as a representative of the manager and amplifies the manager's abilities in a specialized field.

FIGURE 2. THE RELATIONSHIP OF LINE AND STAFF DEPARTMENT



*Advisory and functional authority**I. Advisory Authority*

Advisory authority is expressed by Wheelhouse (1987) as “the type of authority exercised by the department staff that provides support and advice in an organization without being directly involved in operating procedures.”

For instance, the role of the Purchasing Department is to get the best price for food and beverage supplies, but not to decide how to serve the food and beverage. In turn, the accounting department's role is to record income and costs for certain departments, but not to make up the guest's bills.

Therefore, the relationship between operating and staff personnel should be clearly defined so as to avoid or eliminate the conflict that can emerge. For instance, if the Bar Supervisor specifies a certain kind of beer, does the purchasing department have the authority to change specifications if that beer is too expensive?

II. Functional Authority

As expressed by Wheelhouse (1987), functional authority is defined as “a restricted form of operational authority given to a staff department over a specific function.”

For instance, the personnel department might have a training manager with functional authority to deal directly with line managers on matters of employee training. Another good example of functional authority is when the marketing director of one hotel has authority over the menu design. This shows that a marketing department reflects top management's belief that marketing is important.

Span of Control

Span of control is defined as “the number of people that one person can manage effectively.” This concept was developed by management scholar, V. A. Graicunias, who attempted to develop a mathematical approach to determining how many people a manager can directly supervise.

Although the number of subordinates reporting to a manager cannot really be stated precisely, some management scholars assert that ideal lies between three to eight subordinates. But the exact number a manager may supervise depends on the following factors:

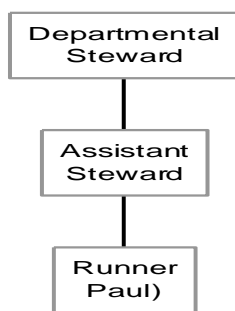
- the amount of supervision workers require
- the complexity of the work
- the ability and training level of the subordinates
- the frequency with which problems and exceptions are likely to occur
- other manager's responsibilities
- the ability of the manager

Unity of command

This is defined by Wheelhouse (1987) as “the commonly-accepted organizational principle that each employee should be accountable to only one boss” as illustrated in Fig. 3. In the hospitality industry, unity of command means that a manager does not interfere in the workings of the subordinate’s department. Rather, the manager discusses any immediate problems with the department head and lets that person take any necessary action.

In contrast, when a serious problem of guest satisfaction or some other emergency arises, rules are often put aside and the manager may intervene directly.

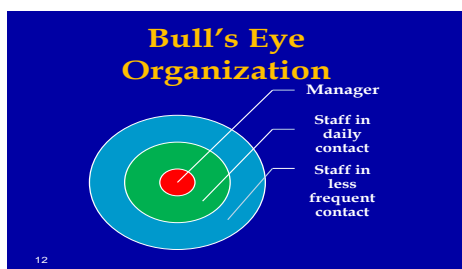
Figure 3. Unit of Command



Manager’s Role in Shaping the Culture

Bull’s eye organization

To explain the manager’s role in shaping the organizational culture, we used the bull’s-eye organization chart (Wheelhouse,1987).



In the center are the guests and surrounding the guests are employees who should have the freedom to interact with and respond to the needs of the guests. On the outer rings would be managers, who are mainly responsible for supporting employees: to keep them supplied, to obtain the necessary equipment, get pay-checks out on time, help them solve their problems, teach and develop them, and reinforce the values and goals of the hotel.

These values and goals must be accomplished through a **participative management style or theory y** - in which employees participate in setting objectives rather than the **autocratic management style or theory x** - in which a manager rules with power (Wheelhouse, 1987).

But, whatever the management style or company mission, the main role of managers is still to manage employees so that they carry out the hotel's business plan. Also, the manager must be able to encourage every worker to meet the hotel's standards and follow its procedures. Today, to achieve this environment, the successful manager must be an expert at team building or team work in order to get every worker in the department to share the same goals and values. In effect, the department has to develop a culture which reflects and supports the organizational culture.

Webster (Wheelhouse, 1987) defines teamwork as "work done by several associates with each doing a part but all subordinating personal prominence to the efficiency of a whole."

Putting values into practice

After deciding what the statement of philosophy is, the values, and the structure of the hotel, the hotel manager must support the values under which the company intends to operate. The hotel's values are put into practice in several ways:

A. Measurement

Measurements are used to evaluate success. Regardless of what a hotel's mission is, what it measures is one of the biggest communicators of what its values are.

For instance, if food costs, beverage costs, labor costs, and inventory turnover are all it measures, and uses to evaluate performance, employees will adapt to that and the hotel culture will be control-oriented. As Wheelhouse (1987) states, out that "the frequency of measurement also has a profound impact on the organizational culture in communicating the true values of the company."

B. Compensation

Compensation policies will also communicate the values of a hotel. For instance, if a hotel wants to have efficient and effective service, employees who are working on the service line should be adequately compensated. As an example, receptionist clerks and cashiers earn minimum wage, while employees in storeroom and in accounting are paid substantially more. This communicates that service isn't the hotel's top priority.

C. Recognition and reward

When employees perform consistently according to the hotel's values, they should be recognized, rewarded, and talked about. Others who see them being recognized and rewarded will realize what's important to the hotel and what it takes to get ahead, and they will follow to accomplish this.

D. The personnel program

All the above determinations should be carried out through the personnel program, which is the practical application of the hotel's mission and values. As Wheelhouse (1987) writes, "No area of

management communicates and controls your values more forcefully than the development and day-to-day administration of your personnel policies and procedures.”

CONCLUSION

This paper attempts to establish a basic process for creating or developing an organizational culture in a hotel. The basic organization structure of a hotel and how can be developed to establish such a culture is introduced.

In order to accomplish a successful organizational culture within a hotel, a hotel manager has to decide what will be the hotel’s statement of philosophy or mission and determine the values and standards by which the hotel will operate. After doing this, he or she has to organize the structure of the hotel and delegate authority and responsibility to each employee, from top management down to line management. The effectiveness of the organizational culture will depend on how responsibilities and authorities are carried out.

After the hotel manager decides the management style, it is suggested that participative or theory y is employed so that **management** will **manage the operation of the hotel** effectively and efficiently. Lastly, the hotel manager has to decide how the values, discussed earlier in this study, can be put into practice. All of these determinations, in turn, can be carried out through the personnel policies and procedures.

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THE INFLUENCE OF FAMILY INVOLVEMENT ON SMES EMPLOYEES' DOWNSIZING DECISIONS

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ABSTRACT

Family firms are likely to align themselves with relevant stakeholders' values which may include involvement in the local communities, a long term strategic focus based on identity image and reputation and human resource management. Different theoretical and empirical evidences seem to suggest that businesses that are family owned or controlled have a more caring approach towards their employees compared to the other firms.

In order to verify the intrinsic or instrumental character of family firms' social performance related to employees, the downsizing phenomenon was considered. Downsizing can be defined as process of personnel reduction in an organization aimed at improving the company's competitive position. Based on the assumption that organizations with a tradition of placing greater value on employees' needs and interests than on short-term perspective should avoid downsizing, the research tries to investigate the relationship between family firms, the extent of downsizing and the mediaton effect of the firm's economic performance.

The results show that family firms can vary their downsizing decisions if different family grade of involvement are considered: firms with high familiness make more "conservative" decisions on their workforce not only in a context of downsizing but also in a context of growth. Probably the resilience of these firms in cutting jobs can act at the same way even in the situation in which the firm could hire.

Keywords: Downsizing, Family, Familiness, CSR, Identity Orientation, SMEs, Mediator variable model.

INTRODUCTION

This study refers to the family involvement in four different dimensions: ownership, governance, management and succession analysing their respective and joint influences on corporate social performance with regard to downsizing.

In order to investigate the social performance of the SMEs that register a relevant family presence, the link of the firm and its relevant stakeholders was analysed applying the organizational identity orientation conceptual framework (Brickson, 2005), Organizational identity orientation affirms that

firms may adopt different incentives for engaging some categories of stakeholders rather than others and is due to these different influences that firms focus on a certain set of stakeholder claims (Brickson, 2005, 2007). In the case of family business, if the family involvement is considered as one of the possible factors that may influence the organizational identity orientation, the categories of stakeholders needs simultaneously satisfied by the firm are broader (Bingham et al, 2010). This fact is demonstrated by different studies that reveal how family firms have a higher sense of obligation to a multiple stakeholder needs and how their behaviour may be influenced by various stakeholders (Sirmon and Hitt, 2003; Zellweger and Nason, 2008). As a result, family firms are likely to align themselves with relevant stakeholders' values which may include involvement in the local communities (Sirmon and Hitt, 2003), a long term strategic focus based on identity image and reputation (Dyer and Whetten, 2006), and human resource management (Sraer and Thesmar, 2006). In particular, the present study focusses on the employees' treatment as one of the most relevant stakeholders group and an important determinant of CSP (Van Buren, 2007). Different theoretical and empirical evidences seem to suggest that businesses that are family owned or controlled have a more caring approach towards their employees compared to the other firms (Aronoff, 2004; Deniz and Suarez, 2005).

In order to verify the intrinsic or instrumental character of family firms' social performance related to employees, the downsizing phenomenon was considered. Downsizing can be defined as process of personnel reduction in an organization aimed at improving the company's competitive position (De Meuse et al., 2004). Furthermore, if during the period considered register sales and profits fall, employment downsizing and cost cutting are typically the first responses of firms' management (Block, 2010). Based on the assumption that organizations with a tradition of placing greater value on employees' needs and interests than on short-term perspective should avoid downsizing (Budros, 1999), the research tries to investigate the relationship between family firms, the extent of downsizing and its implication for the firm's social performance.

Aiming to test the hypotheses that emerged from the previous outlined theoretical assumptions and in order to measure their statistical relevance a quantitative approach was chosen. Data on family grade of involvement and on CSP were collected for a sample of 318 SMEs situated in the same geographical area for a two-year period. In particular, for the identification of the family involvement five dichotomous variables were individuated through the ownership and governance data available. Variables for CSP measurement related to employees' data and economic ones, were individuated as dependent variables. Considering situations of economic slowdown, the use of downsizing and its relationship with firms' social orientation was analysed. Based on these secondary data moderation models including different categories of data were performed.

The results show that family firms can vary their social performance if different family grade of involvement are considered. This fact can help in explaining SMEs social strategies and set a framework for their performance evaluation.

FAMILY BUSINESS STATUS AND IDENTITY ORIENTATION

Identity orientation refers to the nature of assumed relations between an organization and its stakeholders and tries to answer to the following question: “who we are as an organization” (Albert and Whetten, 1985)? Which is the nature of the organization’s relationships with its stakeholders: independent relations, dyadically interdependent, or derived from a common group involvement? (Brickson, 2005, p. 577), It is basically the result of how the members of an organization see and refer to it.

The starting point is the assumption that Zellweger et al., (2011) provide in their study: “...family and organizational identity tend to be overlapping creating a mutually shared understanding of “who we are” and “what we do” in “our family’s business.” (p. 5), In fact, family owner-managers often fit together their family’s identity to the identity of the firm (Dyer & Whetten, 2006, Sundaramurthy and Kreiner, 2008), But not only, family firms can develop distinctive identities also through the different level of involvement and influence of the family activities (Chrisman et al., 2005), The combination of “...the various beliefs that originate from the family and the business, often tied to their common history, may thus explain how the distinctiveness of organizational identity arises.” (Zellweger et al., 2010, p. 58),

In this realm, if the family involvement is considered as one of the possible factors that may influence the organizational identity orientation, the categories of stakeholders needs simultaneously satisfied by the firm are broader (Bingham et al, 2011), This fact is demonstrated by different studies that reveal how family firms have a higher sense of obligation to a multiple stakeholder claims and how their behaviour may be influenced by various stakeholders (Sirmon and Hitt, 2003; Zellweger and Nason, 2008), As a result, family firms are likely to align themselves with relevant stakeholders’ values which may include involvement in the local communities (Sirmon and Hitt, 2003), a long term strategic focus based on identity image and reputation (Dyer and Whetten, 2006), and human resource management (Sraer and Thesmar, 2006) pursuing relevant nonfinancial goals.

In order to investigate the identity orientation of the firms with various degree of family involvement this study will focus on their social value creation processes through the relationships of the firm with its internal stakeholder and its internal social value potentiality in given geographical context and in a fixed period of time.

FAMILY BUSINESS AND CORPORATE SOCIAL RESPONSIBILITY (CSR)

Many studies report that family firms are more CSR oriented than firms without family ties. In general, a more caring approach toward stakeholders and a particular attention toward ethical values are eminent in family more than in nonfamily businesses due to the family's purpose to project a sustainable firm in the long-term (Kets de Vries, 1993, Duh et al., 2010),

An appropriate stakeholder management can contribute to create a good image and enhance the reputation of the firm through its stakeholders (Whetten and Mackey, 2005), The concern for company reputation in family firms plays a crucial role in counterbalancing to the family prerogative, with a higher involvement of nonfamily stakeholders. Observing the respect of nonfamily stakeholders' interest, such as nonfamily employees who represent the most critical category of internal stakeholders, different theoretical and empirical evidences were analysed. They seem to suggest that businesses that are family owned or controlled have a more caring approach towards their employees compared to other firms (Aronoff, 2004; Deniz and Suarez, 2005),

If family firms' human capital is considered, dual relationships can be individuated: family members simultaneously participate in both business and family relationships in their personal and professional lives. These relationships may individuate both positive and negative consequences for human capital, compared to nonfamily firms' conditions (Sirmon and Hitt, 2003), From one hand, family firms may be not interesting for qualified managers due to the exclusive succession and limited potential for professional growth, (Covin, 1994), on the other hand they may figure out friendly, and trustful relationships that brings to higher commitment.

In the light of these considerations, as far as employees not belonging to the family are fundamental asset and critical for a good corporate reputation, family firms must answer to nonfamily employee demands through responsible behaviour and establishing adequate work practices (Zellweger et al., 2011),

FAMILY INVOLVEMENT AND ITS INFLUENCE ON DOWNSIZING

Trying to analyse the behaviour toward employees in firms with high family involvement and test their relational identity orientation, the adoption of downsizing practices is investigated. This can help us verify the intrinsic or instrumental character of family firms' social performance related to employees. Downsizing can be defined as process of personnel reduction in an organization aimed at improving the company's competitive position (De Meuse et al., 2004), Furthermore, if during the period considered register sales and profits fall, employment downsizing and cost cutting are typically the first responses of firms' management (Block, 2010), Based on the assumption that organizations with a tradition of placing greater value on employees' needs and interests than on short-term perspective

should avoid downsizing (Budros, 1999), the research tries to investigate the relationship between family firms, the extent of downsizing and its implication for the firm's social performance.

Looking through the lens of the individualistic organizational identity orientation, the decision to downsize can be seen as a management process in which the relations with stakeholders are merely in function of value creation in terms of financial performance maximisation (De Meuse et al., 2004), Stavrou et al., (2007), propose that while this happens in non-family firms, the downsize practices of family firms will be considered beyond financial performance. In an intrinsic model of stakeholder relationships, the family firms' choice not to use downsizing can be related to their willingness to care for their employees and their communities, more than to espouse the strategic stakeholder management model instead (Berman et al., 1999) as seen also in the previous analysis.

Previous studies that have investigate empirically the downsizing (Stavrou et al. 2006; Block 2010), consider in their models the economic indicators as low profitability may be a strong predictor of deep job cuts (Morris et al., 1999; Block 2010), In the present study revenues are considered as the economic proxy because they may represent the amount of products or services required from the market. In fact, the amount of workforce is more related to the total amount of sales than to the economic performance which comprises also values that are born from valuation processes that usually present high levels of subjectivity. Based on the above arguments, the following hypothesis was developed:

Hypothesis 1: Firms with a high level of family involvement moderates the relationship between firms' revenues and the likelihood of downsizing.

In order to verify the relational identity approach toward employees of the firms that have different grade of family involvement, the wages variation was calculated as the variation that indicates the amount by which the wages changed in a year period as compared to the previous year. At the same way, the variation of the revenues was also calculated and included in the analysis, as a more comprehensive economic measure, which shows the volumes required from the costumers.

In order to consider the economic context in which the firms' implement choices of downsizing, revenues can reflect a medium-term measure of the final output. In fact, the firms must adequate their level of production and as a consequence the workforces needed, to the sales volumes that are able to achieve. This is the reason why revenues were considered as first variable considered for the test of the first hypothesis. However, in the short term, the relationship between the production and sales can be mediated by the amounts of the inventories. Inventories represent the gap between the moment that the product is made (is still part of the process) and the moment the product is sold (become an output), In this time lapse, the firms can manage partially the gap through decision-making on volumes of production made on the basis of the quantity sold and those expected. This is often influenced by the perception and awareness of the manager who can implement this decision considering the influences

that it can have on the resources used in the process and on the expectations. The workforce, being one of the main resources of the process, is directly influenced by these decisions and that's the reason why we relate the downsizing also to the volumes of production. In the balance sheet this aspect is measured by the value of production that includes both the two dimensions, revenues and inventories.

In line with this consideration, the second hypothesis was formulated:

Hypothesis 2: Firms with a high level of family involvement, define stable production levels to obtain more steadiness in the management of their workforce, even in a context of financial downturns.

METHODOLOGY

Sample

In order to test the hypothesis, we needed a population of similar firms, both family and nonfamily, and standardized social performance measures for those firms. The sample of 318 firms was selected considering SMEs operating in the same geographic area in order to detect a homogeneous set of common social and cultural patterns and a comparable consciousness of family perception. After a preliminary check, 30 firms were removed from the initial list as inactive (in phase of liquidation or in default) and other 2 firms were removed as reported incomplete data. The final sample is composed by 286 active firms operating in the area of Modena, with a turnover ≥ 20 millions concerning the 2013.

Measures

For each firm, data was gathered from AIDA (Bureau Van Dijk) for the time frame 2012 - 2013 and covered the following area of information: principal balance sheet economic data (Sales, Value of Production, Value Added, Net Profit, Cost of Employees) the number of employees, the composition of the board of directors (names and surnames, age, gender), information about the CEO and shareholders' composition. For each firm, two researchers carried out an analysis of the data concerning the shareholder composition and the board of directors, in order to double check for accuracy. As a result of this process, familiness of firms was investigated considering 5 different dimensions of family involvement, through the following 5 binary variables:

1. Shareholders' composition: reports 1 if the percentage of the family share owners is $\geq 50\%$ considering max 2 families, including also the cases where the control of the family is exercised indirectly by an holding company; 0 in other cases;
2. Boards of directors: reports 1 if the majority of the members is representative of max 2 owners families (as detected from the shareholders' analysis); 0 in other cases;
3. Family CEO: equals 1 if a member of the families' owners is either CEO or chairman; 0 in other cases;

4. Succeeding generations: equals 1 if the age gap between the older member of the board of directors and the younger one member of the owner families, is ≥ 20 years; 0 in other cases; (The relationship tends to be harmonious when the father is in his 50s and the son is between 23 and 32 years old, but problematic when the father is in his 60s and the son is between ages 34 and 40 (Davis & Tagiuri, 1989),
5. Family name: equals 1 if the entire surname of one of the controlling families is part of the company's name; 0 in other cases.

To assure that high familiness and low familiness subsamples were comparable, we performed a cluster analysis to determine homogeneous subsamples and to verify whether there were significant differences between them. As a result, a variable of ****Familiness**** was created through a cluster analyses, "Ward Method", considering the five different dimensions of family involvement listed previously. Two different groups were created: one consists of 195 companies that present a high familiness and the other group consist in the remaining 91 firms that reveals a low level of familiness.

The economic dimension is investigated by the variation of the natural logarithm of the value of production for the years 2013 versus 2012. This indicator is chosen as it reflects the economic volume of production of a firm considering not only the data driven from the market (as in case of revenues) but it comprises also a part of internal assets (as those represented by the inventories and internal developed assets) for which the determination of the value depends also by firms' managerial decisions.

Finally, the variable considered for the detection of the downsizing (a change in workforce) is a continuous measure that indicates the amount by which the cost of workforce changed in the period concerning the results of the year 2013 as compared to the previous period (2012). If the variation between the natural logarithm of the wages in 2013 and 2012 is negative, it indicates a reduction of the workforce as compared to the previous period. In the literature of downsizing (Block 2010), the variable used to detect downsizing is the percentage variation of the number of employees. In the present research such indicators is not considered as it reports many outliers. This is due to the source of information used that in many cases does not report the data or it refers to data that are not revised annually.

Descriptive statistics for the economic and downsizing variables were carried out for each group: HFB - indicates the group containing the firms with high level of familiness, LFB – indicates the group of firms that reports lower familiness.

For the analysis of the data, a mediating model analysis was adopted. We used the procedure for computing indirect effects described by Hayes (2013). We developed a model for the effect of the independent variable, X, on an outcome variable, Y, where the effect passes through a mediator, M.

This model reflects a causal sequence in which X affects Y indirectly through mediator variable M. In this model, X is postulated to affect M, and this effect then propagates to Y. This indirect effect represents the mechanism by which X transmits its effect on Y.

The variables in our design can be summarized as follows:

- a dichotomous variable (X) indicating the ***familiness of the business***, where LFB were coded +1 and HFB were coded -1,
- a continuous mediating variable (M) consisting of delta of the natural logarithm of the value of production for the years 2013 versus 2012,
- a continuous outcome variable (Y) consisting of delta the variation of the natural logarithm of the wages for the years 2013 versus 2012.

In particular, referring to the Hypothesis, with the first mediation model we will test the following two sub-hypothesis:

H1a: Firms with a high level of family involvement are related to the variation of firms' revenues;

H1b: Variation of firms' revenues are related to the variation of wages.

Adopting a second mediation model to test the second hypothesis, based on the mediator effect of the value of production, two further sub-hypothesis are:

H2a: Firms with a high level of family involvement are related to the variation of firms' value of production;

H2b: Variation of firms' value of production are related to the variation of wages.

RESULTS

Cluster analysis

The results of the cluster analyses, using Ward method, show that only the division in two groups of firms generate homogeneous clusters of the sample. The division in more groups was tested but the outputs were not comparable. Table 1 reports the descriptive statistics run for each cluster: firms with high family involvement (HFB) includes companies that on average has three elements of familiness and firms with low family involvement (LFB) includes only cases where familiness is absent. The cluster representative of HFB as cited before was coded as -1, in order to detect more clearly the effect that this variable has on the independent ones.

Table 1. *Cluster composition (Ward Method)*

Descriptive Statistics						
Ward Method		N	Min	Max	Mean	Std. Dev.
.	FAM	2	0	1	,50	,71
	N. valido (a livello di elenco)	2				
HFB	FAM	195	1	5	3,37	1,11
	N. valido (a livello di elenco)	195				
LFB	FAM	91	0	0	0,00	,00
	N. valido (a livello di elenco)	91				

Mediation Model for Familiness as Mediator variable

The variables used in the mediation model were analysed using descriptive statistics. In particular, referring to the first model, the variation of the revenues in the case of firms with a high involvement of the family, is on average more stable if compared to the other group (0.056 versus 0.213), In the same way the variation of the wages is more stable in the case of firms with high family involvement (0.057 versus 0.169) say reported in Table 2.

Table 3 presents the results of the first mediation model using the variable of Familiness as a mediator, delta revenues as mediator and delta wages as outcome. Under the mediator variable model, we find that the ***Familiness*** does not affect the mediator ($b = -.08$, $t = -1.87$), not supporting H1a. Under the outcome variable model, we find a significant effect of the mediator (.64, $t = 16.04$) on the outcome variable, supporting H1b but the mediation is not supported by the mediator. Given the non-significant mediation effect, the analysis of the indirect effect cannot be considered.

As a consequence of these results, the Hypothesis 1 is not supported.

Table 2. *Descriptive statistics of variables (Delta Wages and Delta Revenues)*

Descriptive Statistics						
Ward Method		N	Min	Max	Mean	Std. Dev.
HFB	VarLnRic2013_2012	180,00	-1,43	3,09	0,056	0,34
	VarLnSalSti2013_2012	194,00	-4,38	2,66	0,057	0,49
	N. valido (a livello di elenco)	180,00				
LFB	VarLnRic2013_2012	81,00	-0,61	7,78	0,213	1,02
	VarLnSalSti2013_2012	90,00	-2,89	4,64	0,169	0,77
	N. valido (a livello di elenco)	80,00				

Table 3. *Mediation Model for Familiness as antecedent variable, Delta Revenues as mediator and Delta Wages as Outcome*

MEDIATOR VARIABLE MODELS			
	b	t	
X: Familiness	-,08	-1,87	
OUTCOME VARIABLE MODEL			
	b	t	
M: Delta Revenues	,64	16,04***	
X: Familiness	-,02	-,82	
<i>Conditional indirect effect(s) of X on Y at values of the moderator(s)</i>			
<i>Bootstrap 95% Confidence Intervals for Conditional Indirect Effect - Bias Corrected and Accelerated (BCa)</i>			
	Effect	Lower	Upper
M: Delta Revenues	-,05	-,14	,00
R-square = ,51			

* if $p < .05$; ** if $p < .01$; *** if $p < .001$. M = mediator, X = manipulation.

Referring to the second hypothesis, a second Mediation Model was tested considering the variation of the Value of Production. From the descriptive statistics of the variables, emerge that the variance of the value of production is stable in the case of firms with higher familiness and if compared to the previous consideration made for the first model, they are more constant than the former ones.

Table 5 presents the results of the second mediation model using the variable of Familiness as X, delta value of production as mediator and delta wages as outcome. Under the mediator variable model, we find that the ***Familiness*** affect the mediator ($b = -.10$, $t = -2.57$), supporting H2a. Under the outcome variable model, we find a significant effect of the mediator ($.72$, $t = 15.67$) on the outcome variable, supporting H2b. Given the significant moderation effect, it makes sense to examine the indirect effect, along with bootstrapping. As can be seen, the conditional indirect effect is significantly different from zero at $\alpha = .05$, given the absence of zero from its bootstrap interval for the variable of **mediator**. The direct effect of X on Y in the mediation model is not significant, showing a full mediation effect of X on Y through the mediator supporting H2.

Table 4. *Descriptive statistics of variables (Delta Wages and Delta Value of Production)*

Descriptive Statistics						
Ward Method		N	Min	Max	Mean	Std. Dev.
HFB	VarLnSalSti2013_2012	194,00	-4,38	2,66	0,057	0,49
	VarLnVP2013_2012	180,00	-1,75	1,82	0,031	0,26
	N. valido (a livello di elenco)	180,00				
LFB	VarLnSalSti2013_2012	90,00	-2,89	4,64	0,169	0,77
	VarLnVP2013_2012	81,00	-0,27	6,63	0,220	0,91
	N. valido (a livello di elenco)	80,00				

Table 5. *Mediation Model for Familiness as antecedent variable, Delta Value of Production as mediator and Delta Wages as Outcome*

MEDIATOR VARIABLE MODELS			
	b	t	
X: Familiness	-,095	-2,57**	
OUTCOME VARIABLE MODEL			
	b	t	
M: Delta Value of Production	,72	15,67***	
X: Familiness	-,004	-,15	
<i>Conditional indirect effect(s) of X on Y at values of the moderator(s)</i>			
<i>Bootstrap 95% Confidence Intervals for Conditional Indirect Effect - Bias Corrected and Accelerated (BCa)</i>			
	Effect	Lower	Upper
M: Delta Value of Production	-,07	-,17	-,01
R-square = ,50			

* if $p < .05$; ** if $p < .01$; *** if $p < .001$. M = mediator, X = manipulation.

DISCUSSION AND MAIN IMPLICATION

In an attempt to extend previous work results on downsizing in family firms, the present study proposed an empirical investigation on this dichotomy applied to SMEs highly linked to the territory in which they operate, introducing also moderating variables that may directly be influenced by the economic context.

The results show that there's no evidence that firms with higher familiness don't have different behaviour compared with firms with lower familiness toward the employees in presence of sale variation. This result reflects the criticism that was highlighted on the limits that a variable related to the revenues trend may bring to the analysis on the resources implemented in the productive process and though to decisions made on the workforce. But still the revenues is a variable that brings the analysis on downsizing closer to the operative reasons why firms vary their workforce. In the cases when the variables based on the performance (such as ROI, ROA, Net profit, etc., used in previous studies) are considered, the analysis may be more subjective due to discretionarily of their determination process. This approach is also in line with what researchers of familiness sustain: family business owners are found to value their firms for reasons that go beyond purely financial goals (Astrachan & Jaskiewicz, 2008; Block, 2009; Zellweger & Astrachan, 2008),

The results of the second model, support the hypothesis that the behaviour of firms with high level of familiness is oriented to maintain a higher stability in workforce mediated by the value of production. The data demonstrates that the value of production seems to be significantly more stable in family firms than in non-family firms and it may predict a same tendency for the variation of wages. These results extend to SMEs, the findings of previous researches on downsizing in family firms carried out for largest listed company.

If the outcomes of the two models are combined, the role of the familiness appears as an important factor that influences the results of firms with higher family involvement. In fact, the relation between HFB and delta wages becomes significant when the moderation passes from the revenues to the value of production where the influence of the decision maker (represented by the family in HFB) is considered.

The present research confirms the findings of other works that have investigate the role of familiness in downsizing decision developing the following key points:

1. the role of family involvement in downsizing decision is tested in a sample of unlisted SMEs with a degree of familiness (HFB with a mean 3.3 of familiness) calculated through five different dimensions;
2. firms with high familiness make more “conservative” decisions on their workforce not only in a context of downsizing but also in a context of growth. Probably the resilience of HFB in cutting jobs can act at the same way even in the situation in which the firm could hire.

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STUDY OF SOCIAL ORGANIZATIONAL PROCESSES IN THE CONTEXT OF COMPLEX SYSTEMS

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ABSTRACT

In this article, the organization in the context of complex systems is analyzed. Because there are many definitions of a complex system in the literature, a definition is based on the following characteristics: A) elements, B) interaction and C) behavior was proposed. On the basis of such distinguished groups of features, it can be concluded that most organizations are characterized by a set of attributes and special behaviors classifying them into the category of adaptive complex systems. It is interesting to look for tools for modeling complex relationships in an organization. The use of simulation and agent- based models (cellular automata) seems to be a natural and promising direction for analysis and research of social processes in the organization. Particularly the similarity between the cellular automaton (which is a complex system) and the social system encourages further research.

Keywords: organization, social processes, complexity theory, cellular automata, simulation

INTRODUCTION

The basis of the proposed approach is to look at the organization as a complex social system. It should be noted that complex social system is a system in the sense of links of positions and roles fulfilled by participants, but it is also a network of relations between the positions and roles of actors. Interactions between participants, between participants and groups or the environment in such a system are the basis for actions, changes, and processes occurring in it. In this approach, the organization is also an implementation of a system perspective derived from the general theory of systems. According to this theory, the organism (organization) is perceived not as a conglomerate of separate elements, but as a system of complex elements that are in mutual relations and perform specific functions (von Bertalanffy, 1984). In addition, the system as a whole has some unique properties that cannot be noticed by analyzing only its components, so the organization should be treated in a holistic way (Hatch, 2002). This approach to the organization is also proposed by the theory of complex systems, where a complex organization can be defined as a set of independent parts that together form a whole dependent on some larger environment (Thompson, 1967). Understanding the behavior of an organization therefore

requires understanding not only the behavior of its parts (elements), but also understanding how they work together and how they create the behavior of the entire system. Undoubtedly, such perception of the organization is an impulse to look for specific tools that allow analyzing and describing organizations and processes occurring in them based on local impacts and structures of connections between constituent elements. The tools developed on the basis of complexity theory especially Agent-based models (ABM) seem interesting to study complex social processes. The main goal of this work is to show the possibility of using ABM, and in particular cellular automata (CA), to study, in the perspective of complex systems, social processes taking place in the organization. The main goal of this work is therefore to show the possibility of using ABM, and in particular cellular automata (CA), to study, in the perspective of complex systems, social processes taking place in the organization. In the following sections of the article, a complex system has been defined and the organization has been described as CAS. Then, the tools that allow analyzing such systems are indicated. Finally, the way and examples of modeling of social systems in the organization using CA is shown.

COMPLEX SYSTEMS

Organization research in the context of complex systems is a relatively new field, but more and more explored in recent years. There are many definitions of complex systems (CS) in the literature. For example, according to Bar-Yam (1997), it is a system which contains a large number of mutually interacting parts. Understanding the behavior of such a system requires understanding not only the behavior of the its part, but also the understanding of how they work together and how they act together. CS is a system consisting of many elements whose which behavior is emergent, that is, the behavior of the whole system cannot easily be deduced from the behavior of its elements. Similarly, Cilers (1998) defines a complex system. He points out that complex systems consist of a large number of elements, witch changes with time. These elements must interact, and this interaction must be dynamic and quite rich, i.e. each element of the system influences, and is influenced by several other elements.. Furthermore, the interactions are non-linear and have a fairly short range, i.e. information is received primarily from immediate neighbors. Complex systems are usually open systems (i.e. they interact with their environment), and they operate under conditions far from equilibrium. CS have a history and they are feedback-oriented.

According to Haken (2006), CS is a system consisting of many parts, elements or components that can be the same or different kind, and they can be combined in a more or less complicated way. The sets of complex system features proposed in Bary-Yam (1997), Cilliers (1998) and Haken (2006) can be understood as the characteristics of several of their principal attributes (factors or dimensions). These are primarily characteristics: A) elements, B) interaction and C) behaviors. CS also often characterize

the specific consequences of traits belonging to these groups, observed in the behavior of the system as a whole (e.g. self-organization, adaptation).

Complex system can therefore be described as follows (Kowalska-Styczeń, 2017):

- A. **Elements:** Complex systems consist of a large number of interconnected (interacting) elements (often referred to as agents or actors).
- B. **Interactions:** Interactions do not have to be physical, they can also be understood as information transfer (processing) processes. Interactions are quite intense, i.e. each element of the system affects many others, while being influenced by many other elements. The intensity levels of interaction between elements vary, but the behavior of the system is not determined by the number of interactions of specific elements. Interactions are nonlinear, and non-linearity means that small causes can lead to significant effects, while significant causes can have minor effects. Interactions usually have a small range, i.e. they mostly concern direct neighbors (agents), which does not exclude influences with a larger range. Interactions have feedback. The effects of actors (agents) affect them sometimes directly, and sometimes after many stages of the system's functioning. Feedback can be positive (stimulating, amplifying) or negative (inhibiting, debilitating). CS are usually open systems, i.e. there are opportunities and ways to interact with the environment.
- C. **Behavior:** Complex systems operate under conditions known as far from equilibrium. This is due to the characteristics of interaction processes, which by definition are dynamic (changeable in each step and dependent on each step). Complex systems have a history. They not only evolve over time, but their past is "co-responsible" for their current behavior. The behavior of CS is emergent. Complexity is the result of relatively intense interaction of individual elements (agents) responding to limited information that they present (transmit) to each other. No agent knows or is able to predict the behavior of the entire system. This behavior emerges as a result of the patterns of local interactions

Research in the perspective of CS should begin with the identification of the essential features of the analyzed system, describing the attributes A, B and C from the above list. Necessary elements of such identification should include:

- defining the basic elements of the system (agents, actors) and their number - (A),
- description of interaction, their type, range (including environmental impacts) and strength, as well as patterns (rules) of agents' behavior - (B),
- description of behavior, observed parameters of the system dynamics during the equilibrium (emergence, e.g. adaptation to changes in the environment through co-evolution, self-organization) - (C).

The features of complex systems often generate specific behaviors of entire systems (macro level) that can be captured in several general patterns. These patterns can be understood as specific manifestations of emergence. On the basis of such specific effects revealed at the macro level, some authors introduce separate categories of complex systems. An example of such often distinguished category are Complex Adaptive Systems – CAS (Holland, 1998; Kauffman, 1995; Langton, 1986). CAS is a set of individual agents with the freedom to act, which is not always completely predictable and of which actions are interconnected so that the behavior of one agent changes the context for other agents (Plsek and Greenhalgh, 2001). In CAS, there are units on a micro level that, through mutual interactions, create global system properties. (Mille and Page, 2007). Complex adaptive systems allow, based on local behaviors, to generate global changes, which in turn change local behaviors. By interacting with the environment and learning from it, the complex adaptive system modifies its behavior, adapting to the changes occurring in it (Rammela et al., 2007). The adaptation of CAS relies on the ability to change and learn from experience, i.e. these systems have the ability to react and adapt to changes taking place in their environment (Rotmans and Loorbach, 2009). The essential changes generated by interactions in the CAS are implemented in subsequent stages of the system functioning thanks to the processes defined as co-evolution and self-organization (Mitleton-Kelly, 2003). Co-evolution is a process of coupled, deformed landscapes, where the adaptive movements of each individual change the landscapes of the neighbors (Kauffman, 1995). These landscapes are obviously states (levels) of factors determining the behavior of individuals (agents) at the micro level. Whereas, 'adaptive movements of individuals' are the effects of the interaction of agents (e.g. changes in attitudes, views, level of knowledge, etc.) referred to as co-evolution. One of the manifestations of the co-revolution process is self-organization. This is a phenomenon in which elements of the complex system undergo spontaneous ordering, and it is the result of independent interactions between individual agents within the system and between agents and the environment (Mainzer, 1994).

ORGANIZATION AS CS

Bearing in mind the attributes of CS and specific features of CAS behavior, one can conclude that most organizations are characterized by a set of attributes and special behaviors classifying them into the category of adaptive complex systems. First of all, the organization perceived as a group of people fills the attribute A). It is a relatively large group of related elements (agents) entering into various interactions with each other. These interactions have diverse and specific features corresponding to those described as B) features. They are rather intense and non-linear (with multiple feedback), which means that each agent (member of the organization) affects many others and vice versa. In addition, the influence of even one person or a small group can cause significant changes in the entire spheres of the

organization activity (e.g. innovation, knowledge, culture etc.). Interactions in the organization have a small range, i.e. people cooperate mainly with 'close neighbors', members of the same teams, informal groups. Organization members also react to information flowing directly or indirectly from the environment. The organization is therefore an open system. The organization follows the requirements of the environment and dynamic interactions in the 'close' neighborhood, and it is like any complex system in a permanent state of imbalance (far from equilibrium) - attribute C. The behavior of the organization as a whole is emergent (attribute C). It is difficult to predict the effects of interaction at the micro level for the system as a whole, even if the behavior patterns of individual agents are known. Usually, the effect of interaction at the micro level is co-evolution towards changes that will ensure survival in the environment (on the market). Emergence is also the process that creates new order together with self-organization. In an organizational context, self-organization may be described as changes that are a reaction to the requirements set by the environment, but it occurs spontaneously and autonomously within the organization. As Anderson (1999) emphasizes, self-organization is the result of local interactions (especially informal). If the members of the organization do the work (that is, they supply energy to the system), then organizations organize themselves. For example, organization members often form informal groups that function through local interactions, without central control or management.

In summary, organizations can be treated as complex adaptive systems in which individuals interact with each other, either directly or via feedback loops, which are constantly evolving and adapting to achieve superior goals (Sanders and McCabe, 2003). In such a system, rules defined at the local level, i.e. at the level of individual units or networks of units, as well as the way they interact, are often more important than global directives. Constant adaptation of these principles, by detecting changes at the local level and through a wide flow of information, allows the whole system to develop and react effectively to influences. Organization as an example of a complex system with an exemplary description of the attributes of such a system is presented in table 1.

ORGANIZATION as CS		
ELEMENTS	INTERACTIONS (Micro level)	BEHAVIOR (Emergence - macro level)
Organization members, employees, leaders, market participants....	Communication (information, knowledge, education ...), Interaction (surroundings, other people, machines, technologies, management system ...)	Structure and management system, Production and services, Social activities, Development of organizational culture, Development of new technologies, Innovations, adaptations / changes, marketing strategies...

Table 1. *Organization as an example of a complex system*

SIMULATION MODELS IN THE STUDY OF COMPLEX SOCIAL SYSTEMS

Organization analysis in perspective of complex systems, requires the use of methods and creation of models that will reflect the processes taking place in the organization, and at the same time, they will allow to understand these processes better. In this approach, the organization is perceived as a social system - a group of people who cooperate on one hand in an orderly and coordinated (institutional) way to achieve a certain set of goals, but on the other hand, they participate in informal mutual interactions.. It is therefore necessary to create and use methods that can adequately reflect and analyze such complex relationships.

The obvious challenge for analyzing an organization in the CS perspective is a large number of basic elements, and thus also interaction. The necessity to take into account the dynamics (changes in time) additionally increases the calculation requirements. Computer simulation tools (simulation models) are basically the only solution available in this area. Simulation is understood as a process of building a model of a specific, real object (system) and conducting experiments based on this model (Anderson, 1999). The model is always a simplified representation of reality (object). The necessary software (computer program) is an indispensable element of the simulation - it allows to create a model structure and plan and conduct experiments.

The increasing popularity of simulation as a methodological approach for the researchers of the organization is noticed by Dolley (2002) who distinguishes three main simulation ways in this area:

- discrete event simulation (modeling the organizational system as a set of entities evolving over time according to the availability of resources and the triggering of events),

- system dynamics (identification of key variables that define the behavior of the system, and then relating those variables to one another through coupled, differential equations),
- agent-based simulation (based on the analysis of the interaction results between agents (units) who operate according to specific rules).

In particular, agent-based simulation (ABS) seems to be an interesting research perspective to analyze the processes occurring in a complex organization. In the context of social systems, agent modeling is agent-based social simulation that is the implementation of the system dynamics research paradigm based on local interactions of their elementary components (Gotts et al., 2003). The aim of agent modeling is to design models that are simple enough to understand the mechanisms of emergence, and at the same time complicated enough to show interesting (real) behaviors (Mitchell and Newman, 2002). As Axelrod (1997) emphasizes, such experiments are not necessarily intended to provide an accurate representation of a detailed empirical application. If the goal is to better understand some fundamental process, then simplicity of assumptions is important, not a realistic representation of all its details.

A typical agent-based model (ABM) consists of three elements (Macal and North, 2010):

- 1) a set of agents, their attributes and behaviors;
- 2) a set of relations and methods of interaction of agents (i.e. how and with whom agents interact);
- 3) spatial environment of agents (agents interact with their environment in combination with other agents).

Agents in ABM are autonomous because in such models there is no central control of behavior, and agents can act independently in their environment and interact with other agents. They may be homogeneous depending on the context of the research (i.e. they react according to the same behavioral patterns) or heterogeneous (they can be distinguished from other agents and at the same time recognizable by other agents). In addition, agents are social, that is, they do not exist in isolation but they cooperate and they compete with each other. It is an action in a certain social environment consisting of a network of interactions with other agents and with the environment. Agents obtain information mainly from their neighbors, whose set may change, e.g. as a result of spatial movement of agents. It is a neighborhood in a physical, geographical sense or defined by the social network of the agent.

The experiment (simulation) of the phenomenon under investigation using the ABM is carried out as follows (Epstein, 1999):

- 1) In the appropriate spatial environment an initial population of autonomous agents is placed;
- 2) Agents are allowed to interact according to simple local rules;

- 3) As a result of these interactions, regularities are formed from the bottom up at the macro level (inductive approach).

An example, but also a special type of ABM is a cellular automaton (CA). CA is a mathematical object consisting of a network of cells in D-dimensional space, a finite set of states of a single cell and a rule, which determines the state of the cell at time $t + 1$ depending on the state at time t of the cell and cells that surround it. Surrounding cells are called the neighborhood of the i -th cell (Kowalska-Styczeń, 2007). In most cases, a two-dimensional cellular automaton with periodic boundary conditions is used and it is a square network of $L \times L$ agent. The two most common neighborhoods of the cellular automaton are von Neumann's neighborhood (4 and 12 elements - fig. 1) and Moore's neighborhood (8 and 24 elements - fig. 2).

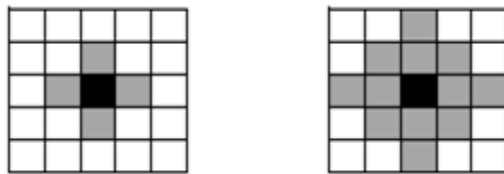


FIGURE 1. VON NEUMANN'S NEIGHBOURHOOD FOR 4 NEIGHBORS (LEFT PANEL) AND 12 NEIGHBORS (RIGHT PANEL), NEIGHBOURS ARE GREY CELLS

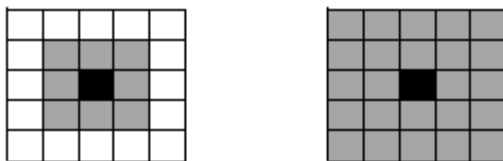


FIGURE 2. FIG. 2. MOORE'S NEIGHBOURHOOD FOR 8 NEIGHBORS (LEFT PANEL) AND 24 NEIGHBORS (RIGHT PANEL), NEIGHBOURS ARE GREY CELLS

The rules of the cellular automaton determine its evolution at a discrete time. The states of particular cells are updated at each discrete moment t . Thus, each cellular automaton is a dynamic object in time. A characteristic feature of CA is also self-organization, which involves the emergence of some kind of internal ordering of the network structure of cells over time. This process is not forced by external factors.

CA indicate clear similarities to social systems (Hegselmann, 1996), as shown in Table 2.

Feature	Cellular automata	Social system
Basic units	Cells	Individuals - people
Possible states	The cells are in states taken from a certain set of possible states.	Individuals make certain choices, adopt certain attitudes, and emotional states.
Interdependence	The neighbors affect the state of the center cell and vice versa.	Individuals affect each other mutually.
The level of impact	Transition rules are local.	Individuals act and affect each other only locally, i.e. within a certain neighborhood
Overlapping	Neighborhoods are overlapping.	Interactions between people often have an overlapping structure
Applications and tasks	Modeling the emergence of order, modeling dynamic processes, macro effects explained by rules at the micro level	Important tasks for understanding social phenomena: understanding the emergence of order; understanding micro-macro-relations; understanding social dynamics.

Table 2. *Similarities between cellular automata and the dynamics of the social system*

The above considerations lead to the conclusion that the cellular automaton is itself a complex system.

It is enough to refer to the essential features defining complex systems:

- A) CA, as complex systems, consists of a large number of interconnected and interacting elements (agents)
- B) Interactions are quite intense, i.e. each agent affects many others, while being influenced by many agents. Interactions usually have a small (local) range, i.e. they concern direct neighbors (agents)
- C) The behavior of the CA as a whole is emergent (it cannot be predicted based on local behavior patterns). It is a result of relatively intense interaction of individual elements (agents - cells). No agent knows (and it cannot predict) the behavior of the entire system. This behavior appears as the effect of defined patterns of local impacts

SIMULATION MODELS IN THE STUDY OF COMPLEX SOCIAL SYSTEMS

As shown above, cellular automata are complex systems. In addition, they show many similarities to the social system. Therefore, it seems interesting to model and analyze complex social processes using CA techniques. Table 3 shows the similarities between the organization treated as CAS and cellular automata due to the attributes of the complex system: A), B) and C).

The similarities in Table 3 show that cellular automata can be used to model and study many processes taking place in the organization in the context of complex systems. Simulations can complement traditional research methods, especially in the field of processes taking place in an organization with the participation of people and members of the organization. An example of such a process is the transfer of knowledge in the organization. Knowledge and its transfer are strongly associated with

social interactions. Non-formal networks of contacts play a key role in this process (networks of friends significantly support the transfer of knowledge allowing to learn from the experience of others). This is a premise for conducting simulation and bottom-up approaches in modeling, in which relations at the local (bottom-up) level generate phenomena at the global level (i.e. at the level of the entire organization). The CA model to analyze the knowledge transfer was used by Kowalska-Styczeń A. et al. (2018a, 2018b). In the first article, a CA model in which the exchange of knowledge took place mainly through informal contacts between the members of the organization was proposed. In this article, knowledge transfer is understood as a common process in an organization, which is mostly implemented informally by sharing knowledge 'face to face', similarly to Girdauskiene and Savaneviciene (2012). Hirshman et al. (2011) point out, that for most people, 'core discussion groups' consist of three to five people. Thus, in the article Kowalska-Styczeń A. et al. (2018a), the von Neumann neighbourhood (Fig. 1- left panel) was proposed, because it reflects typical discussion groups and face to face communication well. Another basic assumption in the model was to divide the transferred knowledge into a number of knowledge chunks. This concept was inspired by the model of Hirshman et al. (2011), where the transferred knowledge consisted of certain facts (elements, pieces of knowledge). Furthermore, the transfer of knowledge is effective, if the distance of common knowledge between the source and recipient is small (Reagans & McEvily, 2003). In the presented model, transfer of knowledge is possible when the sender has one knowledge chunk more than the recipient - the knowledge distance is small. The description of this model is presented in Table 4.

CAS	A) ELEMENTS	B) INTERACTIONS	C) BEHAVIOR
ORGANIZATION	Organization members, employees, market participants, leaders	<ul style="list-style-type: none"> - quite intense (every employee of the organization, market participant affects many others and at the same time he is influenced by many) - they take place most often in groups of co-workers (formal or informal) - the effects of employees 'and market participants' activities are in the nature of feedback - employees, market participants have different possibilities and ways of interacting with others (system openness) 	<ul style="list-style-type: none"> - the organization is far from equilibrium (constant changes in the environment) - the behavior of the organization as a whole is emergent - co-evolution is the effect of interaction at the micro level - the typical behavior is adaptation that allows competition and survival on the market
CELLULAR AUTOMATA	Cells - Agents	<ul style="list-style-type: none"> - agents are influenced and at the same time are influenced by other agents - interactions in the environment are freely defined - feedback effect - interactions in the agents' network 	<ul style="list-style-type: none"> - constant changes in the environment as a result of the transition rules - emergence (possible coevolution) - agents' adaptation to the environment

Table 3. *Similarities between the organization as CAS and cellular automata*

Knowledge transfer - CA model	
Organization	L×L large square lattice with helical boundary conditions, fully populated by agents
Organization members	Cells - agents. Each agent can be a leader of knowledge or a follower. In a single interaction, an agent who has more knowledge (more chunks) is the leader of knowledge. Each agent has the ability to have each K portion of knowledge with the probability q
Interaction range	von Neumann neighborhood (4 neighbors). The neighbors affect the state of the center cell and vice versa
The rules	Each agent in each step of the simulation t can receive one chunk of knowledge from one of his neighbors. Transfer in time t is possible, if in time t - 1 neighbor of the selected agent has exactly one chunk of knowledge more than himself. Initially, the missing chunk of knowledge is drawn randomly, and then a neighbor with a knowledge distance equaling one is sought. If such an agent exists in the neighborhood, then knowledge transfer takes place.

Table 4. *CA model of knowledge transfer*

The aim of the simulations was to obtain an answer to a question - what factors affect the efficiency and effectiveness of knowledge transfer? Effectiveness is understood here as 'the degree to which goals are attained' (Daft, 1998), and efficiency as the speed at which the receiver acquires the new insights and

skills (Pérez-Nordtvedt et al. 2008). In connection with these definitions, the following have been studied:

- how will the initial level of knowledge and distribution of knowledge through transfer of knowledge affect the final level of knowledge in the organization?
- and how long does this process take?

The study of both the effectiveness and efficiency of knowledge transfer indicated the significant role of the initial concentration of knowledge chunks in the transfer process. If the state of knowledge at the beginning of the transfer is so important, then organizations should conduct courses and trainings for their employees to increase initial knowledge in the organization. The more people will have the required knowledge, the more effective and effective the transfer of knowledge will be.

In the second article, in search of a situation conducive to more effective and efficient exchange of knowledge, three versions of the CA knowledge transfer model in the organization were considered. In the first version of model (A) the transfer of chunks of knowledge among agents was possible only when the sender had exactly one more chunk of knowledge than recipient. In the second model (B) the knowledge transfer took place when the sender was “smarter” than the recipient. Finally, in the third scenario (model C), knowledge transfer was also possible when the sender had the same or greater number of knowledge chunks as recipient. Computer simulations have shown that the efficiency and the effectiveness of knowledge transfer is the best for the C model. In this situation, the sender is also a person who has the same number of portions of knowledge as the recipient (they have a similar level of knowledge) and more often transfer of knowledge takes place.

Another example of a complex social process in an organization is the creation of an organizational culture. According to Schein (2004) 'culture' for organizations and managers refers to the climate and organizational practices that develop around people and values that are part of the organization's views and principles. This is a dynamic phenomenon created by our interactions with others and with leadership behaviors. As Amah (2012) points out, culture helps in the day-to-day operations of employees to meet specific goals, and allows organizations to react quickly to the organization's environment. Organizational culture is also a set of values, guiding beliefs, understanding and ways of thinking that are shared by members of the organization and passed on to new members as correct (Duncan, 1989). This means that culture is co-created and transmitted by people (in mutual interactions), and can be analyzed in the CA convention. As Schein (2004) emphasizes, organizational culture is intrinsically linked to leadership, it begins with leaders who impose their own values and assumptions on a group. Foremost, it is a transformational leadership that does not exhibit external motivation (based on exchange relations) but internal motivation. This approach takes into account social interactions that change over time, and the fact that there are leaders despite the lack of a

managerial position (DeRue, 2011). An example of such an approach is work by Kowalska-Styczeń and Owczarek (2017). In this article, the process of creating culture under the influence of leaders and organization activities (employee training, etc.) is examined. The goal was to gain insights into the global behavior of the analyzed system based on local interactions within groups of employees. Organizational culture was created through exchanges of information between members of the organization. Each person (agent) has been assigned a vector representing - the 'pattern of basic assumptions' proposed by Schein, which includes common views, ideas, values, beliefs, etc., preferred by the company. The values of the vector elements are set at 0 or 1 (the agent either accepts the assumption or not). Members of the organization adapted to the organizational culture pattern by exchanging information on this subject with other employees (agents changed their values of cultural characteristics to be dominant in the neighborhood). The purpose of the simulations was to examine how the density of connections between members of the organization and the size of informal groups affect the process of transferring appropriate values of organizational culture patterns in the context of two mechanisms: the influence of leaders and organization activities (training). The leaders were assigned the 'culture' defined by the basic assumptions (vector dimensions) preferred by the organization and they did not change values in this vector under the influence of the neighborhood. The organization members could also acquire/change elements of the pattern during trainings and courses organized by the organization. The training may cover various aspects of the organizational culture, depending on the subject of the training. This aspect of the organization's activity has been included in the model by introducing an external field of influence that represents the percentage of employees sent for training. The CA model used in this work is defined in Table 5.

Creating an organizational culture- CA model	
Organization	$L \times L$ large square lattice with helical boundary conditions, populated by agents in $p\%$
Organization members	Cells - agents. Every agent in the network has a 'culture' assigned randomly i.e. a vector of n - features consisting of 0 and 1
Interaction range	von Neumann neighborhood (4 and 12 neighbors) and Moore's neighborhood (8 and 24 neighbors). The neighbors affect the state of the center cell and vice versa
The rules	<p>Assimilation rule: Each simulation step, the agent checks each attribute of its neighbors' vector and changes its value to the dominant in the neighborhood. If it has the same value as the dominant one - nothing changes</p> <p>Leaders rules: Leaders have a culture preferred by the organization. At the beginning of the simulation, 1 % of all agents are randomly selected as leaders. Leaders do not change their culture, all other agents act according to assimilation rule.</p> <p>The influence field t: At each simulation step, one attribute in the culture vector is randomly selected, and then t % randomly chosen agents change their value of this attribute to be preferred by organization.</p>

Table 5. *CA model of creating an organizational culture*

The purpose of the simulation was to investigate how the density of connections between members of the organization and the size of informal groups affect the creation of organizational culture in the context of two mechanisms: the influence of leaders and organization activities (training). The results of the simulation showed that both the density of the network (the number of informal contacts between employees), and the size of the neighborhoods in which information is exchanged, affect the effectiveness of both mechanisms of impact. Larger groups of neighbors and a denser network strengthen the effectiveness of the leaders' influence. In the case of training, a denser network of contacts contributes to the spreading of the desired culture, but as the neighborhood size increases, this effect is weakening.

SUMMARY AND CONCLUSIONS

Computer modeling and simulation of social processes within the organization is the implementation of the computational paradigm in management sciences. This paradigm plays a special role in situations when precise, analytical descriptions of the observed phenomenon are unavailable, or it is impossible to experiment directly (Hoekstra et al. 2010). Such a situation occurs in complex systems, and especially in complex social systems in which many relationships, interactions between individuals can be identified, but an experiment cannot be carried out that will examine the effect of their effects over time.

The shown examples of the use of cellular automata undividedly show their potential and possibilities. The growing popularity of cellular models in social sciences stems from the relative simplicity of the concept. It is often even emphasized that these are the tools that implement Einstein's postulate ("Everything should be made as simple as possible, but no simpler"). The use of computer simulation can be a supplement to traditional empirical studies of social processes in organizations (such as Al-Sada et al., 2017; Gear et al., 2017, Jonek-Kowalska and Wodarski, 2017, 2018)

The importance of agent-based model, and in particular cellular automata, is growing due to the dynamic development of computational techniques. However, despite the growing availability of software, the agent-based models (including cellular automata) in organizational and management sciences are not often used. In connection with the above, the article presents the possibilities of analyzing social phenomena in the organization using cellular automata, as well as the method of conducting simulation study of complex social processes.

It seems that the interesting direction of further research on the implementation of the proposed approach to research in the field of organization management may be to seek a compromise between the simplicity of models and the detail of the mapping of reality. This can be achieved, for example, on the one hand by making the definition of the agents environment more flexible, and on the other by

multi-valued defining variables characterizing the state and behavior of virtual participants in the studied processes.

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THE APPLICATION OF SUSTAINABLE TOURISM INDICATORS: EVIDENCE FROM CROATIA

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ABSTRACT

The number of tourist arrivals, overnights stays and international tourism receipts are often the main indicators of the success of a tourism destination. These indicators also underlie the success of the tourism year, and they are usually part of the annual statistics published by the different national or international organizations. The quantitative indicators accepted as a measure of development and success of a tourism destination often become the primary goal, while their growth represents a necessity of survival and the performance of a particular tourism destination. However, destinations do not even notice the problems that constant striving for tourist arrivals and overnight stays can cause. This paper analyses the application of sustainable tourism indicators in tourism destination. On the sample of 62 tourist boards in Croatia a survey was conducted with the aim to identify indicators that tourist boards use for sustainable destination development. Results show unsatisfactory level of the usage of tourism indicators needed for destination management. Tourist boards are mostly gathering indicators on the number of tourist arrivals and overnights, while complex indicators and indicators related to the basic sustainability issues are missing. Main constraints are the lack of data, funds, knowledge and employees. The paper suggests that a legislative framework is required to regulate systematic gathering and calculation of indicators appropriate for the development of tourism in a certain destination. This would also serve as a support for creation of a sustainable tourism indicator system needed for decision making processes regarding the strategic development of a destination.

Keywords: sustainable tourism indicators, tourism destination, sustainable tourism development

INTRODUCTION

Hardi & Zdan (1997) argue how monitoring and measuring development by indicators are essential for understanding the complex environment and the possibility of a timely reaction to change. The basic purpose of indicators is to provide a timely and clear warning of a change in certain values, which is crucial for the development and management, in order to ensure a proper implementation of corrective actions and measures directed at defined development goals (UNCSD, 2001). The indicators thus

determine the course of the decision making process and orientation towards a future (Meadows, 1998; OECD, 2000; UNDESA, 2007).

The process of definition of indicators is fraught with difficulties which might include setting a large number of indicators covering a broad array of activities, measuring for its own sake instead of what is significant, deliberate falsification or incomplete data, but also disproportionate reliance on indicators (Meadows; 1998: 4; Bell & Morse, 2008). Additional, issues which require careful deliberation are the optimal number of indicators, selection of indicators, their purpose and areas of activity, but also how the results are used and interpreted (Bell & Morse, 2003). Bell & Morse (2003: 31) further affirm that the indicators have to be measurable, specific, sensitive, available and low-cost. The definition of an indicator system regarding sustainable development and the application alone is not a guarantee of implementation, either because it requires a constant development, monitoring, measuring, reporting, institutionalization, evaluation and improvement of sustainable development indicators (Meadows, 1998). OECD (2000) asserts that basic indicators constitute a foundation for a continuous monitoring of progress and comparison of states. However, the unavailability of information to calculate the indicators as well as the inability to monitor and control the sustainable development goals are flagged as crucial problems regarding the implementation of indicators (European Commission, 2005, 2007; Eurostat, 2015).

THE DEVELOPMENT OF SUSTAINABLE TOURISM INDICATORS

Sustainable tourism indicators are quantitative data of time series (UNWTO, 2004: 8) and their basic purpose is to establish cause-and-effect relationship between tourism and the environment, but also to rate the impact of tourism and its effects on the environment (UNWTO, 1996: 5). These indicators are a result of a growing demand to measure the impact of development processes, as well as the realization of development goals and the efficiency of strategic development policies and plans. Since the development processes cause some negative impacts, indicators should enable the managers to promptly identify certain problems and prevent them in a timely fashion, mitigate their effects or specifically to identify certain impacts, in order to take the necessary actions before the problems become truly acute (UNWTO, 2004: 9). It is necessary to integrate the indicators into development plans so they can be used to measure and control the process of realization of the defined development goals. Therefore, indicators demonstrate the current condition and standards to be achieved, which can be a subject of comparison between particular destinations (UNWTO, 1996, 2004). Unless there are no indicators, the concept of sustainable tourism development is rendered completely meaningless.

Weaver & Lawton (1999) suggest that the potential number of destination sustainability indicators is truly enormous. Different categories of indicators regarding the sustainable tourism development are

available, and they can be deployed individually, compositely or as a part of a system for measuring and rating. Defining of the carrying capacity is crucial in planning and the control of a sustainable tourism development. The carrying capacity is “the maximum number of people that may visit a tourism destination at the same time, without causing destruction of the physical, economic and socio-cultural environment and an unacceptable decrease in the quality of the visitors' satisfaction” (UNWTO, 1981). Its purpose is setting the upper critical limit or optimal framework for tourism development and utilization of resources in tourism in order to prevent, forestall and/or mitigate the negative impacts of tourism development (UNWTO, 1998: 172).

The scholarly literature is replete with a fairly large number of methodological frameworks and systems of monitoring and rating indicators of sustainable tourism development. Most of them follow the methodology and practical application of indicators improved by the United Nations World Tourism Organization throughout several publications (UNWTO, 1993, 1996, 2004). The European Union uses several indicator systems. The first system of indicators, predominantly based on the European Environment Agency (EEA, 1999, 2005) methodology, was developed by the Statistical Office of the European Union (Eurostat, 2006ab). These indicators demonstrate the cause-and-effect relationship and mostly correspond to indicators within the UNWTO system, i.e. they cover same or similar area/theme. Furthermore, a European Tourism Indicators System for sustainable destination management (ETIS) in EU was developed (European Commission, 2013ab, 2015). The intention of the program was to support more efficient management, the identification of key areas of destination sustainability and comparison and sharing of knowledge. The ETIS methodology and indicators are testing on the sample of 200 different European tourism destinations. In the first phase of testing in 2014, 104 destinations were tested. According to the processed results from 50 destinations, 13 of them did not use any sustainable tourism indicator system, while 30 destinations used some indicators for measuring sustainability.

The Global Sustainable Tourism Council (GSTC, 2013, 2016) defined 41 key areas of indicators and criteria for defining relevant indicators. It is necessary to note the OECD system for measuring competitiveness in tourism at a national level (Dupeyras & MacCallum, 2013). A significant portion of these indicators is present in the previously discussed sustainable tourism indicator systems. Since certain competition indicators are present in the sustainable tourism indicators systems, it is plausible to conclude that destinations which implement the principles of the sustainable tourism development are enabled to compete in the tourism market. This assertion corresponds with the claims of certain authors (Blancas et al., 2015; Karlsson & Dolnicar, 2015; Cucculelli & Goffi, 2016) that the development of tourism in accordance with the principles of sustainable development concept constitutes a competitive advantage on current tourism market.

MANAGING THE SUSTAINABLE DEVELOPMENT OF A TOURISM DESTINATION

The destination management is a long-term process of managing change, and it should ensure competitive advantage, optimal economic development, higher living standards, tourist satisfaction, and preservation of natural and cultural heritage (Blažević, 2007: 218). The indicators of sustainable tourism development are the crucial segment of planning and developing a destination. Therefore, Ko (2005) emphasises the necessity of including all destination stakeholders in the whole process of implementation and evaluation of the indicators. Choi & Sirakaya (2006) note that such inclusion is particularly important when indicators are implemented in local communities. UNWTO (1998: 98) accentuates the crucial role of the public sector, whose purview is the creation and implementation of development policies and administrative standards. Therefore, development and implementation of the indicators include experts and different destination stakeholders using sophisticated methods, workshops, surveys and other tools (Mascarenhas et al., 2015).

The problem of unavailability of relevant data for indicators calculation is related to the problem of testing defined systems of indicators. Hence, Kožić & Mikulić (2011ab) claim that the relevant data for measuring and tracing is not available in Croatia, because although certain aspects of tourism sustainability are covered by the existing data, the complete data required for constituting a comprehensive indicator system is lacking. Therefore, authors suggest the establishment of a legal framework for tourism concerning data acquisition within the administrative units at national, regional and local levels. Additionally, Vojnović (2014) emphasizes the problem of discontinuous and incomplete data for calculation, while many of data are not public available data or data that have only internal purpose for certain organizations. The problem of the unavailability of data needed for the calculation of indicators is also detected by Blancas & Associates (2010, 2015, 2016). However, based on the work of experts and available data, Blancas & Associates (2016) managed to calculate a static and dynamic composite indicator of sustainability for EU countries. According to the static sustainability indicator, France, Norway and Germany were at the top of the tourism sustainability ranking, while Romania, Slovakia and Malta had the worst. At the same time, the best dynamic indicator for tourism sustainability had Hungary, Romania and Croatia, and the worst had Ireland, Luxembourg and Latvia. Indicators are also often unquantifiable, unrealistic, imprecise or even meaningless, which negatively effects the prospects of their implementation in the concept of sustainable tourism development (Ceron & Dubois, 2003). Fernández & Rivero (2009) noted a relationship between the lack of usage of indicators and the level of tourism development in destinations. A unified system is yet to be established which will enable the comparison of different destinations. This claim is supported by the fact that the sustainable development is a multivariate phenomenon and the situation is further

complicated by invalid or unavailable data required for measuring. Kožić & Mikulić (2011ab) suggest that considering these issues, the indicators should be unambiguous, calculable and comparable across time and space. Therefore, some authors suggest using a methodology of a composite index, which constitutes a synthesis of various indicators, commonly from the same area of activity. The rationale is the more precise definition of a certain phenomenon. Therefore, a definition of an indicator can vary thematically and the application in the destination can be more precise (Blancas et al., 2010; Lozano-Oyola et al., 2012). Blancas & Associates (2010) note that the basic advantages of the composite index are the simplicity of measurement, comparative analysis, identification and control of trends and a more intuitive interpretation to the public and private sectors.

TOURISM IN THE REPUBLIC OF CROATIA

Tourism in the Republic of Croatia represents one of the most important parts of economy. Great dependency of Croatian economy on tourism is demonstrated by a high ratio of income from international tourism in gross GDP, which was 17.2% in 2014 and 18.1% in 2015 (Rašić Bakarić, 2017). The increase index of tourist arrivals in 2016, when compared to 2009, was 152, while the tourist overnights index was 142 (CBS, 2017). Roughly 90% of all tourist arrivals are realized by foreign tourists. The development of tourism displays considerable variation across different areas. The majority of tourist traffic is recorded in the NUTS2 region of Adriatic Croatia – 87% out of total tourist arrivals and 95% out of total of all overnights realized in Croatia (CBS, 2016). Accordingly, the promotion campaigns undertaken by the national tourist board are directed towards encouraging tourism in Continental Croatia NUTS2 region. When tourism is as intensive as it is in Croatia, there is a real possibility that the carrying capacity will be exceeded. Unfortunately, strategic documents concerning the development of tourism in Croatia do not consider indicators regarding sustainable tourism development (Government of Croatia, 2013; SAORC, 2016). The data concerning the success of tourism provided by the Croatian Bureau of Statistics, the Ministry of Tourism and the Croatian National Bank are reduced to the number of arrivals, overnights and tourist consumption. This data, which is continuously accumulated, enable the definition of only the most basic sustainability indicators such as tourism density and intensity. The Eurostat (2017) defines tourism density as „the relationship between the total number of nights spent and the total area of each region“. According to the same source, tourism density in 2015 in EU-28 was 597 overnights/ km², while tourism density in Croatia was more than double of that number (1265.24 overnights/ km²). The continuous increase of tourism density over the past years is depicted in Figure 1.

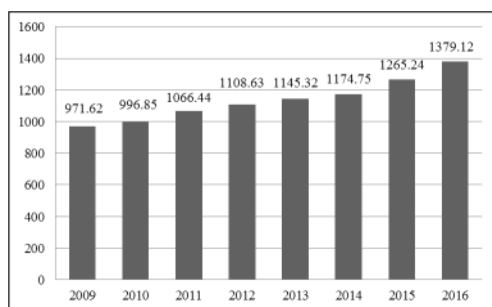


Figure 1. Tourism density in Croatia (overnights per km²) from 2009 to 2016

Source: made by authors according to data CBS, 2017

The tourism intensity is defined as „the ratio of nights spent at tourist accommodation establishments relative to the total permanent resident population of the area“ Eurostat (2017). The tourism intensity was, at the level of EU in 2015, 5.29 overnights per inhabitant, while in Croatia it was 17.03 overnights per inhabitant. Data for the past years shows Figure 2.

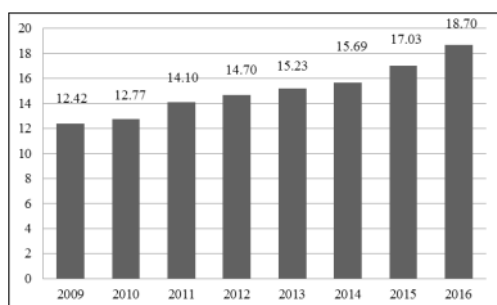


Figure 2. Tourism intensity in Croatia (overnights per inhabitant) from 2009 to 2016

Source: made by authors according to data CBS, 2017

The management and conceptualization of the future tourism development in the Republic of Croatia falls under the purview of the Ministry of Tourism, which also has the jurisdiction over Croatian tourist boards system. Tourist boards are organized according to the territorial principle (national, county, city and municipal level) and represent some kind of destination management organizations. According to the Law on tourist boards and the promotion of Croatian tourism, tourist boards are founded as means to promote and improve tourism in the Republic of Croatia (NN, 152/08). The purpose of a tourist board should be destination management, and the care for a sustainable development constitutes one of the most important assignments, however, some legislative constraints are still pending to be adjusted to the needs of Croatian tourism.

RESEARCH METHODOLOGY

The survey on tourist boards in Croatia was conducted for the purpose of determining the application level of indicators regarding sustainable tourism development. The research encompassed tourist boards at all levels and at the entire territory of the Republic of Croatia. The survey was conducted

using a structured questionnaire which consisted of 11 questions (open and closed questions using a Likert scale), mostly focused on the level of usage of indicators, possibilities and constraints of the usage and some future perspectives of development. The questionnaire deployed a basic set of sustainable tourism development indicators of the UNWTO (2004). This set of indicators was chosen as the basic set of indicators which was the starting point for development of other sustainable tourism indicators systems and a base for different researches (Choi & Sirakaya, 2006; Tanguay et al., 2013). The research was conducted electronically and the questionnaire was dispatched at 297 e-mail addresses of tourist boards which are publicly available. At the moment of dispatching the questionnaire, 29 e-mail addresses were inactive. This may be explained by the fact that some tourist boards are inactive outside the peak season or their existence is merely a formality. A total of 62 questionnaires dispatched were completed (21 from Continental and 41 from Adriatic Croatia). The sample includes tourist boards at the level of towns, municipalities and counties at the entire territory of Croatia. The National Tourist Board did not participate in the research, which represents a shortcoming in the research. Data were analysed by methods of descriptive statistics.

RESEARCH RESULTS

Tourist boards in the Republic of Croatia gather on average five ($\bar{X} = 5.24$, $Mo = 4$) out of 29 indicators available, which the UNWTO deems necessary for adequate management of a tourism destination. A single tourist board does not gather any of these indicators, and one of the tourist boards (town Mali Lošinj) in the Adriatic Croatia gathers 21 out of the available indicators. The difference in the awareness on monitoring the indicators considering the level of tourism development of a destination is clearly demonstrated with the data on gathering indicators. The maritime counties gather on average 6.1 indicators, while continental tourist boards collect 3.68 indicators on average. The commonly gathered data within the tourist boards, which were the subject of our research, include tourist arrivals by months and trimesters (67.70%) and then data on the gross number of tourist arrivals (59.70%). The level of visitor satisfaction is gathered by a half of tourist boards in the research, while 54.8% calculates the occupancy rate of accommodation facilities by months and analyses the occupancy at the season peak in relation to off-season period. These tourist boards also measure the percentage of total occupancy in the most occupied trimester or a month. As much as 41.90% of tourist boards gathers data on the satisfaction level of the local community and 35.5% calculates the tourism intensity. These two indicators are a foundation for planning the sociological component of sustainable tourism development. Eight indicators are gathered by a single tourist board and they include: the consumption of energy per inhabitant from all sources available, a percentage of companies participating in energy conservation programs or apply policies and techniques of energy conservation, a percentage of energy

consumption from renewable sources, conservation of water, the frequency of drinking water related infections, the percentage of accommodation facilities included in the system of wastewater treatment, a ratio of recycled waste volume in m³ and total volume of waste, the percentage of the controlled area (density, the spatial positioning).

The most common indicators of sustainable tourism development that tourist boards plan to gather in the next three years are satisfaction level of local community with tourism (12 tourist boards) and the satisfaction level of visitors (also 12 tourist boards). The significance of loyalty as a sustainability indicator was recognized by 10 tourist boards, therefore these tourist boards plan to measure the percentage of tourists returning in the following period.

The most common reasons expressed by the tourist boards for the failure to monitor the indicators are the unavailability of data for indicator calculation (56.45%), followed by the lack of employees to conduct the analysis and interpretation of indicators (50.0%) and insufficient funds for the analysis and interpretation of indicators (46.77%). A cause for concern is that 12.90% of surveyed tourist boards believe that the problem does not apply to them and that it should be the purview of the local administration.

Furthermore, only 12.90% of tourist boards express the destination carrying capacity it manages and the same percentage (12.90%) of tourist boards are unaware whether the carrying capacity is calculated at all. The remaining tourist boards (74.20%) do not calculate the carrying capacity. Out of eight tourist boards, which do calculate the carrying capacity, only one is from Continental Croatia. The content analysis of responses has determined that some tourist boards misinterpret the carrying capacity because they relate it to the number of accommodation units or beaches. Only a single tourist board has calculated the destination carrying capacity. In addition, only a single destination is currently in the process of calculating the destination carrying capacity, because is threatened by the loss of the UNESCO protected area status due to the carrying capacity overload.

The tourist boards express the desire to use additional indicators in order to achieve material or other benefits. In that context, tourist boards would most commonly measure tourist consumption followed by a continuous appraisal of visitor number at certain locations, the satisfaction of the local community with tourism investments, the impact of tourism on environment and socio-cultural impacts of tourism. The statement of two tourist boards is notable as they would measure the arrivals of weekend tourists inadequately monitored in the Republic of Croatia. The tourist boards feel they have a profound impact on the sustainable tourism development in their destination.

New technologies could provide different information about the tourist behaviour in destination and other activities related to tourism. Therefore, such information serve as a support in destination management. Unfortunately, new technologies are used by merely eleven tourist boards (17.75%).

These technologies predominantly include (according to the surveyed tourist boards) the use of social media and on-line surveys (14.5%). Only a single destination uses Heat maps as a mean to monitor the destination sustainable development, and four destinations have provided some kind of a mobile applications intended for tourists.

Tourist boards were asked to rate the current degree of tourism sustainability in the destination under their jurisdiction on a scale from -5 to 5 (extremely unsustainable to extremely sustainable). The average estimated degree of tourism sustainability of a destination is 2.52 (Mo=4, Me=3), where the perceived sustainability degree is somewhat better rated in the Adriatic destinations (\bar{x} =2.87, Mo=4, Me=3) than in the continental destinations (\bar{x} =2.00, Mo=2, Me=2). From the tourism development point of view, the sustainability estimated should be higher in the Continental Croatia, since the tourism is less developed there. Therefore, this data may point to a possible failure to understand the concept of sustainable tourism development. This data also relates to lower level of tourism development of Continental Croatia and the fact tourism is not a prior economic activity in this area. However, all tourist boards concur that the sustainable development of tourism is important for the future of the destination under their jurisdiction (the average grade 4.09, Mo=5, Me=4.5). The estimates display differences between tourist boards based in the Adriatic Croatia (\bar{x} =4.18, Mo=5, Me=5) when compared to the tourist boards based in Continental Croatia (\bar{x} =4.04, Mo=5, Me=4). This is not surprising considering the level of tourism development in Adriatic Croatia.

DISCUSSION OF RESEARCH FINDINGS

Croatia is a destination where tourism intensity and density are extremely high in comparison to the EU average. It appears that the indicator monitoring system is underdeveloped within the system of tourist boards and the basis of the decision-making process is thus faulty. The research has demonstrated how the development of tourism in Croatia happens without a proper analyses. These findings are in accordance with results of the European Commission (2013ab, 2015) where many European destinations still do not use sustainable tourism indicators or use only few of them in the destination development. This is especially expressed in continental destinations of Croatia which are on the lower level of tourism development proving a relationship between the lack of usage of indicators and the level of tourism development in destinations Fernández & Rivero (2009). The oldest UNWTO set of indicators was selected as a base for this research. The research results demonstrate how the destination Mali Lošinj gathers 21 indicators, while in the next three years the destination also plans to introduce new indicators. This indicates the relevance and actuality of the UNWTO set of indicators. However, on average merely 18% of suggested indicators are gathered. Thereby, the exception of Mali Lošinj goes in favour of their decision to gather and analyse all indicators from the

ETIS system. In total Mali Lošinj uses more than 130 indicators, so it represents an example of good management practice in Croatia and a foundation for benchmarking analysis of tourist boards in Croatia.

Between the indicators proposed, tourist boards mostly gather the basic and simple indicators, such as tourist arrivals and overnights. These data are usually used as indicators of destination success, thereby ignoring their relation to other elements of destination development. Positive development is seen by the usage of other indicators which are crucial for development planning – tourist's satisfaction, tourism intensity and occupancy rate of accommodation facilities. Tourist's satisfaction was found important for loyalty, so some destinations plan to introduce this indicator in their future development plans. Thereby, for such purpose only few tourist boards plan to use some kind of new information and communication technologies. However, there is a question about the real usage of these indicators in tourism destination management. Furthermore, eight typical ecological indicators are gathered by only one of surveyed tourist boards. These indicators represent a basis for the carrying capacity and sustainable destination development. In this context, the research data show the disuse of carrying capacity and its misreading. Low awareness on ecological problems is certainly one of the causes of such state, although, the reason also lies in the fact that 16.12% of surveyed tourist boards believes that the knowledge required for analysis and interpretation of indicators is insufficient. Not a single destination gathers data on the percentage of tourism establishments whose drinking water meets the international standards. This could be probably described by the fact how Croatia is rich in water. According to the results, the most common reason of failure to use the indicators is the unavailability of data for the calculation of indicators. This claim confirms conclusions given by Kožić & Mikulić (2011ab), Vojnović (2014), Blancas & Associates (2010, 2015, 2016) and Eurostat (2015). In this context, the creation of a sustainable development indicators system in Croatia would certainly improve the actual state (Kožić & Mikulić, 2011ab). Still, the lack of funds, employees and knowledge also appear as a constraint, while in some destinations prevails the opinion how indicators are not the issues of tourist board, whether they are under the jurisdiction of local authorities. This evidence indicates the role of local government in tourism planning and development (UNWTO, 1998), but also the failure of the actual Croatian tourism system based on tourist boards.

The absence of a defined carrying capacity of a destination leads to a basic problem of controlling the sustainable tourism development. If the framework of goals or the framework for their realization is not defined, it is impossible to monitor the realization of goals and predict the direction of development. Currently, tourist boards find sustainability at satisfactory level. Accordingly, it seems the carrying capacity is not a problem, especially in continental destinations with lower level of tourism development. However, the destination which faces the annulment of the UNESCO protected area

certificate points to this problem. The reason is the unorganized system of monitoring and the analysis of sustainable tourism development indicators and carrying capacity. Finally, sustainability should be an important aspect of future destination management. A high average evaluation of the importance of sustainable tourism development expresses awareness on the introduction of this concept in the future development of destinations. The prediction is that the future comparative advantages of destinations will be precisely ecological and socio-cultural characteristics, which protection is possible only through the implementation of sustainable tourism development concepts at all levels (Dupeyras & MacCallum, 2013; Blancas et al., 2015; Karlsson & Dolnicar, 2015; Cucculelli & Goffi, 2016).

CONCLUSION

Tourism destinations are required to constantly work on their development, in order to succeed on the extremely competitive market. A successful development in tourism includes the unconditional observance of sustainability principles and goals. Their implementation demands continuous measuring and analysis of sustainable tourism development indicators, which are crucial in planning and the control of destination development. The selection of indicators to be use, first and foremost, depends on the proposed strategic goals of the destination. Several sets of indicators are available which can prevent potential negative impacts of tourism in a destination and the set of sustainable tourism development indicators elaborated by the UNWTO is one of the first and most simple sets available. Croatia is a fast growing tourism destination, where there is a real danger that the sustainability principles will not be implemented in its tourism development. The development of tourism in Croatia is uneven and tourist flow with extreme seasonality is concentrated on the NUTS2 region of Adriatic Croatia. Currently, an extremely high tourism density is present in Croatia, which is twice as large as is the EU average, and tourism intensity is triple than is the EU average. Tourist boards in Croatia present central places of managing tourism development in Croatia. However, this development lacks the monitoring system in Croatia. Simultaneously, the ratio of tourist boards is negligible which, according to some methodology or other, monitor the sustainable tourism development indicators. The majority of tourist boards utilizes merely five basic indicators available through the central tourism information system *eVisitor*, which does not provide sufficient information on the destination development. The reasons for the absence of indicators use are organizational and subjective and they should present no limitation to an organized system. This research has demonstrated that to implement the principles and goals of sustainable tourism development, high level of awareness is required which is yet to be reached in Croatia. Therefore, the gathering of annual indicators requires necessary legislation and the indicator system of sustainable tourism development should be adapted to developmental goals and specificities of Croatian tourism.

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RELATIONSHIPS BETWEEN INNOVATION MANAGEMENT, TOTAL FACTOR PRODUCTIVITY AND GROWTH: A COMPARATIVE STUDY BETWEEN PAKISTAN AND EUROPEAN UNION

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ABSTRACT

The paper aims to investigate relationships between innovation management, total factor productivity and economic growth in the Pakistani economy. By comparing the trends in total factor productivity growth of industrialized economies (i.e. European Union or France), this study aims to showcase the importance of total factor productivity progress in the Pakistani economy, thereby enabling useful policy decisions. The study employs time series data of an annual basis for the period from 1970 to 2016 retrieved from the World Development Indicator. The study employs unit root test, cointegration test, the fully modified least squares estimation method and the dynamic least squares estimation method to test the hypotheses. The results of the cointegrating regression analysis show that manufacturing and patent growth lead to the increase of total factor productivity in the short-run in Pakistan and in Europe (i.e. France). The findings of the study suggest that manufacturing (i.e. product innovation) and patent (i.e. R&D and innovation management) are positively related to the increase of total factor productivity in the short-run and economic growth in the long-run. In this way, by linking the total factor productivity growth rate to innovation management, R&D subsidies and an abundance of skilled labour reduce the marginal cost of conducting R&D and increase the rate of innovation management and therefore, the total factor productivity growth rate. These capacities are determined by the same set of conditions that are closely linked to the state of total factor productivity and innovation management.

Keywords: Innovation management; Technological change; R&D; Patent; Product innovation; Total factor productivity; Manufacturing; Pakistan; European Union

INTRODUCTION

The manufacturing sector has turned out to be essential world patron on the planet economy, particularly, the manufacturing sector in developing economies. Be that as it may, in Pakistan the manufacturing sector isn't developing as quickly as in different nations. One of the real reasons is energy emergency that is being looked by Pakistan for more than over 10 years. The continuous energy

emergency in Pakistan and the reliance on thermal power age has added to the need to improve energy production system. The costly thermal power and powerlessness to recoup its cost gives exceptional ascent to the power tariffs (Zameer and Wang, 2018). It has been argued that from past 20-25 years the manufacturing has been diminished which led to deindustrialization in developing countries (Haraguchi et al., 2017).

Innovation performance can be enhanced in Pakistan with the assistance of public support. This paper will drive a connection between public support and innovation management in Pakistan manufacturing industry. Public support can prompt more industrialization in Pakistan which can prompt the development of the manufacturing industry. Individuals of Pakistan need to support their neighborhood items over remote items. The nature of items can be enhanced with the input of the general population and new things can be made by the necessities of the nearby individuals. This won't only help develop the manufacturing industry but it will likewise enable individuals as more occupations will be made for local people. Gill (2009) discusses the relationship among various quality practices and business profits; he explains the five pillars of TQM which include product, price, organization, leadership and commitment that leads to higher profits by the use of different quality improvements and customer focus.

LITERATURE REVIEW

Overview of Product Innovation and Innovation Management in Pakistan

It wouldn't be an exaggeration to state that technology has effectively pegged itself to the advancement of humankind and has figured out how to wind up a vital resource. The extremely quick changes occurring on the mechanical front has pushed organizations to coordinate technology into their frameworks keeping in mind the end goal to taste the sweet wine of progress. Pakistan is likewise among the nations that are putting vigorously in the Information Technology (IT) upset and neighborhood organizations have rushed to receive technology in all its eminence. Here are some technology-based arrangements presented by a few organizations in Pakistan that have helped them enhance distinctive parts of their organizations. As of late ICI Dulux, a famous paint company, propelled the most recent variant of its Visualizer application for iOS and Android. This cell phone application enables clients to see, offer and paint in their most loved colors in real time. The application works by joining augmented reality and video visualization to demonstrate colors on a divider in real time (Mian, 2016). This example shows how manufacturing industry is growing in Pakistan and with the help of people who use their app they can make it better.

Innovation performance is improving gradually in Pakistan. Construction section is one of the major contributors in Pakistan which are creating jobs and construction organizations examine and

understand their hard work for their performance (Rafique et al., 2017). Innovation performance is costly and difficult to accomplish yet it can produce important, difficult-to-imitate and incomparable skills and capacities which, over the long haul, prompt improvement of economical upper hands for firms (Adekola et al., 2008; Gunday et al., 2011; Kaplan and Poole, 2003; Wang and Wang, 2012). Manufacturing companies are improving regarding their product innovation with the help from feedback from the public.

Input Factors of Total Factor Productivity and Innovation Management

To analyze innovation performance in private sector first we need to understand what types of organizations are there and what are there governing structure that can lead to successful innovation performance. A few specialists highlighted the significance of hierarchical structure (Petersen and Malone, 1975). Pinto and Covin (1989) understood that the undertaking group and task grid are among the best hierarchical structures. Pinto and Covin (1989) attested that the segment in which the venture is set-up impacts the achievement elements of the undertaking. Belassi and Tukul (1996) indicated the impact of outside components like political, monetary, social and sectorial variables. Parry and Song (1994) examined these impacts in China and Canada. The results showed that aggressiveness could give a genuine hindrance to development accomplishment in China while this was not the situation in Canada. As opposed to Canadian firms, Chinese firms put extraordinary accentuation on the starting phases of the procedure to be specific statistical surveying.

To have the knowledge where the forms are operating is also necessary for innovation performance. Knowledge has a level of topographical specificity. Regardless of the limit of firms to take advantage of international knowledge systems, knowledge is still to some degree 'local': it has some measurement of spatial specificity which makes the pool of knowledge in any area distinctive to that accessible somewhere else (Roper and Love, 2018). A few territories are essentially more 'knowledge rich' than others with possibly critical results for expected post-development returns and the potential for firms to improve (Beers and Panne, 2011). The richness of local knowledge, and the idea of local knowledge systems and network, will help shape the potential for firms to innovate by knowledge overflows. For instance, there is a solid topographical measurement to overflows from colleges, with the effect of college R&D being restricted to a great extent to the area in which the exploration happens (Anselin et al., 1997, 2000; Audretsch and Feldman, 1996).

At the point when a firm emphatically surveys the expected post-innovation returns and decides to innovate in view of knowledge grew completely or somewhat outside its limits, the association faces advance decisions identifying with its knowledge procurement procedures. For instance, should the firm create cooperative or interactive associations with accomplices to together grow new knowledge? These may be associations, organize linkages or legally construct assertions went into in light of either a

formal or casual premise. This sort of association is portrayed by vital purpose and common engagement of the two gatherings, and will be described by interactive learning (Glückler, 2013). Such methodologies may produce new-to-the-world knowledge however may likewise include noteworthy business, specialized and administrative dangers (Astebro and Michela, 2005), and in addition high administration and co-appointment costs (Crone and Roper, 2003).

Empirical Model - Total Factor Productivity Model

Total factor productivity (TFP) is a synonym for multi-factor productivity (MFP). The OECD (2001) productivity manual uses the MFP acronym to signal certain modesty with respect to the capacity of capturing all factors contribution to output growth. Total factor productivity is the portion of output not explained by traditionally measured inputs of labour and capital used in production (Comin, 2006). As such, its level is determined by how efficiently and intensely the inputs are utilized in production. If all inputs are accounted for, then total factor productivity can be taken as a measure of an economy's long-term technological change or technological dynamism (Ayres et al., 2002; Comin, 2006; Gordon, 2016; Natividad, 2014; OECD, 2001). Technology growth and efficiency are regarded as two of the biggest sub-sections of total factor productivity, which enhance its position as a driver of economic growth. Total factor productivity is often posited as the real driver of growth within an economy, while labour and investment are still important contributors.

The equation below (in Cobb–Douglas form) represents total output (Y) as a function of total factor productivity (A), capital input (K), labour input (L), and the two inputs' respective shares of output (α and β are the share of contribution for K and L respectively). An increase in either A, K or L will lead to an increase in output.

$$Y = A \times K^\alpha \times L^\beta$$

Total factor productivity growth is usually measured by the Solow residual, as shown in the landmark article by Robert Solow (1956). Let Y denote the growth rate of aggregate output, K denote the growth rate of aggregate capital, L denote the growth rate of aggregate labour, and α and β are the share of contribution for K and L respectively. The Solow residual measures TFP growth if the growth rates of the inputs are measured accurately. TFP plays a critical role on economic fluctuations, economic growth and cross-country per capita income differences. At business cycle frequencies, TFP is strongly correlated with output and hours worked.

Based on this observation, Kydland and Prescott (1982) initiated the real business cycle literature. In the standard business cycle model, shocks to TFP are propagated by pro-cyclical labour supply and investment, thereby generating fluctuations in output and labour productivity at business cycle frequencies with amplitude. Subsequent work has introduced pro-cyclical fluctuations in measured TFP by incorporating unmeasured labour hoarding and capacity utilization in the standard framework

(Burnside et al., 1995; King and Rebelo, 1999). The long-run growth in an economy with an aggregate neoclassical production function must be driven by growth in TFP. For over 30 years, the conceptual difficulty when trying to endogenize TFP growth was how to pay for the fixed costs of innovation in a perfectly competitive economy with constant returns to scale in capital and labour (Comin, 2006). In this context, all output is exhausted by paying capital and labour their marginal products, and therefore, no resources are left to pay for the innovation costs.

Romer (1990) and Aghion and Howitt (1992) solved this problem by granting the innovator monopolistic rights over his innovation, which are sustainable through the patent system. In this way, innovators can recoup the initial fixed costs of innovation through the profit margin they make from commercializing their patent. By linking the TFP growth rate to innovation, endogenous growth models shed light on the determinants of TFP growth. Research and development (R&D) subsidies and an abundance of skilled labour reduce the marginal cost of conducting R&D and increase the rate of innovation development and therefore, the TFP growth rate. Increases in the size of markets increase the innovators' revenues, leading to more innovation and higher TFP growth.

These capacities are determined by the same set of conditions that are closely linked to the state of TFP development. Comparing the trends in TFP growth of industrialized economies (i.e. European Union, or France), this study aims to demonstrate the importance of TFP progress in the Pakistani economy, thereby enabling useful policy decisions. Accordingly, the following hypotheses are considered:

Hypothesis 1: There is a long-run equilibrium relationship between TFP growth and total output.

Hypothesis 2: Manufacture growth leads to the increase of TFP in the short-run.

Hypothesis 3: Merchandise trade growth leads to the increase of TFP in the short-run.

Hypothesis 4: Innovation growth leads to the increase of TFP in the short-run.

Hypothesis 5: Capital growth leads to the increase of total output in the short-run.

Hypothesis 6: Labour growth leads to the increase of total output in the short-run.

RESEARCH METHODOLOGY

Data and Indicators

The sample is restricted to the period of time in which annual data is available and comparable among variables from 1970 to 2016. All of the time series data below was collected and retrieved from the World Development Indicator (WDI) database published by the World Bank.

Total output: Industry value added (% of GDP) and manufactures exports (% of merchandise exports) are used as the proxy of total output. Industry corresponds to the International Standard Industrial Classification (ISIC) divisions 10-45 and includes manufacturing (ISIC divisions 15-37). It comprises value added in mining, manufacturing, construction, electricity, water, and gas. Value added is the net

output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. Manufactures comprise commodities in SITC sections 5 chemicals, 6 basic manufactures, 7 machinery and transport equipment, and 8 miscellaneous manufactured goods, excluding division 68 non-ferrous metals.

Capital input: Domestic credit to private sector (% of GDP) is used as the proxy of capital input. Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment. The financial corporations include monetary authorities and deposit money banks, as well as other financial corporations where data are available (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Examples of other financial corporations are finance and leasing companies, money lenders, insurance corporations, pension funds, and foreign exchange companies.

Labour input: Employment to population ratio (15+, total (%), national estimate) is used as the proxy of labour input. Employment to population ratio is the proportion of a country's population that is employed. Employment is defined as persons of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit, whether at work during the reference period (i.e. who worked in a job for at least one hour) or not at work due to temporary absence from a job, or to working-time arrangements. Ages 15 and older are generally considered the working-age population.

Total Factor Productivity (TFP) growth: Patent applications, manufacturing value added (% of GDP), and merchandise trade (% of GDP) are used as the main drivers of TFP growth. Patent applications (by residents and nonresidents) are worldwide patent applications filed through the Patent Cooperation Treaty procedure or with a national patent office for exclusive rights for an invention - a product or process that provides a new way of doing something or offers a new technical solution to a problem. A patent provides protection for the invention to the owner of the patent for a limited period, generally 20 years. Manufacturing as a share of GDP refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. Merchandise trade as a share of GDP is the sum of merchandise exports and imports divided by the value of GDP, all in current U.S. dollars.

Descriptive Statistics of Data

All these time series data have been collected and retrieved from the World Development Indicator database published by the World Bank. For all these time series data are reported on an annual basis

and employed for the period from 1970 to 2016 (47 observations for each country). Table 1 displays descriptive statistics along with various summary statistics for the time series. Table 2 displays the results of Pearson correlation analysis between the time series.

	Unit	Minimum	Maximum	Mean	Std. Deviation
Industry	%	19.36	27.10	23.05	1.68
Export	%	48.19	85.99	71.41	11.74
Capital	%	15.38	29.78	23.71	3.65
Labour	%	29.20	50.70	39.34	6.63
Manufacture	%	12.80	18.56	15.61	1.19
Merchandise	%	10.36	38.74	29.73	5.22
Patent	number	405	1738	808	376

Table 1. *Descriptive Statistics*

	Capital	Labour	Industry	Export	Manufacture	Merchandise
Labour	-.360*					
Industry	.433**	-.343*				
Export	-.040	.604**	.190			
Manufacture	.514**	-.450**	.886**	-.024		
Merchandise	.077	.150	.217	.268	.093	
Patent	.008	.388**	-.220	.600**	-.388**	.103

Correlation is significant *, at the 0.05 level and **, at the 0.01 level (2-tailed).

Table 2. *Pearson Correlations*

Unit Root Test

It is well known in the literature that the data generating process for many economic variables are characterized by stochastic trends that might result in spurious inference if the time series properties are not carefully investigated. A time series is said to be stationary if the mean and autocovariances of the series do not depend on time. Any series that is not stationary is said to be non-stationary (i.e. it has a unit root). The formal method to test the stationarity of a series is the unit root test. There are several well-known tests for this purpose based on individual time series: the augmented Dickey-Fuller (ADF) unit root test (Dickey and Fuller, 1979, 1981), the Phillips-Perron (PP) unit root test (Phillips and Perron, 1988), and the Kwiatkowski, Phillips, Schmidt and Shin (KPSS) unit root test (Kwiatkowski et al., 1992), among others.

Tests	ADF(0)	ADF(1)	PP(0)	PP(1)	KPSS(0)	KPSS(1)
Capital	-1.592	-5.810**	-1.592	-5.743**	0.482*	0.103
Labour	-1.071	-7.283**	-0.952	-7.358**	0.739**	0.069
Industry	-2.409	-7.435**	-2.480	-8.537**	0.637*	0.138
Export	-1.372	-3.416*	-1.280	-7.767**	0.615*	0.152
Patent	-0.907	-5.146**	-1.179	-5.223**	0.557*	0.211
Manufacture	-2.393	-7.429**	-2.214	-9.234**	0.589*	0.182
Merchandise	-2.284	-5.985**	-2.286	-5.999**	0.516*	0.286

Probability values are employed at the 5% significant level (*, p-value < 0.05 and **, p-value < 0.01).

Table 3. *Results of Unit Root Tests*

Table 3 reports the results of unit root tests. All test equations were tested by the method of least squares, including an intercept but no time trend in the model. Probabilities for all tests assume asymptotic normality. In the ADF and PP tests, an optimal lag in the tests is automatically selected based on Schwarz Info Criterion and the lag length (bandwidth) in the tests is automatically selected based on the Newey-West estimator (Newey and West, 1994) using the Bartlett kernel function. In ADF and PP tests, probability values for rejection of the null hypothesis of a unit root are employed at the 0.05 level based on MacKinnon (1996) one-sided p-values. KPSS tests the null hypothesis: a series has no unit root (stationary), while the alternative hypothesis assumes that the series has a unit root (non-stationary). In KPSS test, probability values for rejection of the null hypothesis are based on Kwiatkowski et al. (1992) LM statistic p-values.

RESULTS

Results of Cointegration Test

Engle and Granger (1987) point out that a linear combination of two or more non-stationary series may be stationary. If such a stationary linear combination exists, the non-stationary time series are said to be cointegrated. If these variables are cointegrated, then there exists long-run equilibrium among the variables. In other words, if the variables are cointegrated, there is a long-run relationship, and there exists a force to converge into long-run equilibrium. There are two test methods to identify whether there is a long-run relationship among variables: the Engle-Granger single equation test method (Engle and Granger, 1987) and the Johansen cointegration test (Johansen, 1988).

Cheung and Lai (1993) report that the Johansen approach is more efficient than the Engle-Granger single equation test method because the maximum likelihood procedure has useful large and finite sample properties. The Johansen cointegration test models each variable as a function of all the lagged endogenous variables in the system. The Johansen procedure uses two ratio tests: a trace test and a maximum eigenvalue test, to test the number of cointegration relationships. Both tests can be used to determine the number of cointegrating vectors present, although they do not always indicate the same number of cointegrating vectors. If trace statistics and maximum eigenvalue statistics yield different results, the result of the maximum eigenvalue test is preferred due to the benefit of carrying out separate tests on each eigenvalue.

Table 4 reports the results of the Johansen cointegration test. The test equation was tested by the method of least squares. The regression model allows for a linear deterministic trend in data and includes intercept but no trend in vector autoregressive models. For the two likelihood ratio test statistics, the probability value for rejection of the null hypothesis of no cointegration is based on the MacKinnon et al. (1999) p-values. The null hypothesis of no cointegration is rejected at the 5 %

significance level. The trace test indicates at least one cointegrating equation exists at the 0.05 level and the maximum eigenvalue test also indicates at least one cointegrating equation exists at the 0.05 level. Therefore, the null hypothesis of no cointegration can be rejected at the 0.05 level. Considering the results of the Johansen cointegration test in Table 4, this study concludes that hypothesis 1 that there is a long-run equilibrium relationship between TFP growth factors and total output in Pakistan, is supported.

Number of cointegration (r)	Trace statistic	Maximum eigenvalue statistic
r = 0	108.842**	50.313**
r ≤ 1	58.528	22.943
r ≤ 2	35.584	17.107
r ≤ 3	18.476	11.343
r ≤ 4	7.133	4.765
r ≤ 5	2.367	2.367

Regression model: Output = Capital + Labour + TFP (Manufacture + Merchandise + Patent)

Cointegrating equations are significant at the 0.05 level (*, p-value < 0.05 and **, p-value < 0.01).

Table 4. *Results of Johansen Cointegration Test*

Results of Cointegrating Regression Analysis

Considering the results of the Johansen cointegration test in Table 4, it is evident that there is a long-run equilibrium relationship between TFP growth factors and total output in Pakistan. In this case, an unrestricted vector autoregressive model would not be an effective option for testing short-run dynamics. Engle and Granger (1987) noted that if two or more time series variables are cointegrated, there is always a corresponding error correction representation in which the short-run dynamics of the variables in the system are influenced by the deviation from equilibrium. The cointegrated variables must have an error correction representation in which an error correction term is incorporated into the model. In this case, a vector error correction model is formulated to reintroduce the information lost in the differencing process, thereby allowing for long-run equilibrium as well as short-run dynamics. The vector error correction model implies that changes in one variable are a function of the level of disequilibrium in the cointegrating relationship (i.e. captured by the error correction term), as well as changes in other explanatory variables. There are several estimation methods for testing a single cointegrating vector, an error correction term. These are fully modified OLS (Phillips and Hansen, 1990), canonical cointegrating regression (Park, 1992), and dynamic OLS (Saikkonen, 1992; Stock and Watson, 1993).

Phillips and Hansen (1990) propose an estimator that employs a semi-parametric correction to eliminate the problems caused by the long-run correlation between the cointegrating equation and stochastic regressor innovations. The Fully Modified OLS (FMOLS) estimator is asymptotically unbiased and has fully efficient mixture normal asymptotics allowing for standard Wald tests using

asymptotic Chi-square statistical inference (Hansen, 1992). The FMOLS estimator employs preliminary estimates of the symmetric and one sided long-run covariance matrices of the residuals. The canonical cointegrating regression (Park, 1992) is closely related to FMOLS, but instead employs stationary transformations of the data to obtain least squares estimates to remove the long-run dependence between the cointegrating equation and stochastic regressor innovations. Like FMOLS, the canonical cointegrating regression (CCR) estimates follow a mixture normal distribution, which is free of non-scalar nuisance parameters and permits asymptotic Chi-square testing. The CCR transformations asymptotically eliminate the endogeneity caused by the long-run correlation of the cointegrating equation errors and the stochastic regressor innovations, and simultaneously correct for asymptotic bias resulting from the contemporaneous correlation between the regression and stochastic regressor errors (Park, 1992). Estimates based on CCR are therefore fully efficient and have the same unbiased, mixture normal asymptotics as FMOLS (Park, 1992).

Saikkonen (1992) and Stock and Watson (1993) propose a simple approach to constructing an asymptotically efficient estimator that eliminates the feedback in the cointegrating system. The Dynamic OLS (DOLS) method involves augmenting the cointegrating regression with lags and leads of ΔX_t so that the resulting cointegrating equation error term is orthogonal to the entire history of the stochastic regressor innovations. The model employs an intercept-trend specification for the cointegrating equation, with no additional deterministics in the regressor equations, and four lags and leads of the differenced cointegrating regressor to eliminate long-run correlation between the innovations. Under the assumption that adding lags and leads of the differenced regressors soaks up all of the long-run correlation between long-run variances, least-squares estimates of the equation have the same asymptotic distribution as those obtained from FMOLS and CCR (Saikkonen, 1992; Stock and Watson, 1993).

Table 5 reports the results of cointegrating regression analysis using FMOLS and DOLS. In testing hypothesis 2,3 and 4 that manufacturing, merchandise trade and patent application growth lead to the increase of TFP growth in the short-run, Table 5 shows that manufacturing (i.e. product innovation) is significant at the 0.01 level and patent (i.e. R&D and innovation management) is also significant at the 0.01 level. The results confirm that manufacturing and product innovation are positively related to the increase of TFP and total output in Pakistan and in Europe (i.e. France). However, when the economy is getting industrialized (i.e. France), it shows that the share of contribution of merchandise trade diminishes greatly in value in the model, eventually negative.

In testing hypothesis 5 that capital growth leads to the increase of total output in the short-run, Table 5 shows that capital growth is significant at the 0.01 level in Europe, but not significant in Pakistan. The results confirm that capital growth is positively related to the increase of total output in Europe (i.e.

France). That is, when the economy is getting industrialized (i.e. France), it shows that the share of contribution of capital growth increases greatly in value in the model, eventually positive.

In testing hypothesis 6 that labour productivity leads to the increase of total output in the short-run, Table 5 shows that labour productivity is significant at the 0.01 level in both Pakistan and Europe. The results confirm that labour productivity is positively related to the increase of total output in Pakistan and Europe (i.e. France). That is, when the economy is getting industrialized, it shows that the share of contribution of labour productivity increases greatly in value in the model, eventually positive.

Country	Pakistan	Pakistan	Europe (France)	Europe (France)
Estimation method	FMOLS	DOLS	FMOLS	DOLS
Capital	-0.334(0.368)	-0.751(0.506)	0.051(0.010)**	0.119(0.031)**
Labour	0.904(0.208)**	0.846(0.261)**	0.293(0.047)**	0.145(0.035)**
Manufacture	5.074(1.219)**	7.121(2.470)**	1.170(0.055)**	0.826(0.150)**
Merchandise	0.314(0.254)	0.171(0.563)	-0.100(0.017)**	-0.354(0.075)**
Patent	15.412(2.813)**	17.560(3.050)**	0.002(0.001)*	0.002(0.001)*
Cointegrating deterministics	-86.543(18.610)**	-64.767(16.751)**	-11.204(3.070)**	-4.070(5.082)
R-squared	0.691	0.897	0.993	0.998
Adjusted R-squared	0.652	0.808	0.992	0.994
Long-run variance	57.526	40.785	0.039	0.010

Regression model: Output = Capital + Labour + TFP (Manufacture + Merchandise + Patent)

Probability values are employed at the 5% significant level (*, p-value < 0.05 and**, p-value < 0.01).

The numeric values in cells are coefficients of regressors and standard errors follow in parenthesis.

¹ Cointegration coefficient diagnostic test has been conducted by Wald test.

² Cointegration test has been conducted by Hansen parameter instability test for the null hypothesis.

Table 5. *Results of Cointegrating Regression Analysis*

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FISCAL VALUE OF DISTANCE-BASED ROAD PRICING SYSTEM PROJECT IN YEKATERINBURG

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ABSTRACT

The purpose of this study is to assess the fiscal value of the introduction of a per-kilometer congestion charge in Yekaterinburg. The study highlights the problem of using a specific fiscal instrument – congestion charge. The authors prove that the problem is highly relevant in Russian cities that are facing the pressure of growing car numbers. Various models of charging motorists for driving within downtown areas are considered. The authors argue that London, Milano, Rome, Singapore, and Stockholm have the best operating congestion pricing schemes. They prove that using satellite technology for effecting a distance-based congestion charge holds the best promise for introduction in Russian cities. The fiscal value of a satellite-based per-kilometer congestion charge in the industrial city of Yekaterinburg is calculated. The authors prove that the pricing system could recoup its deployment costs within three years, yet the minimum proposed daily fee would not exceed 30% of what a motorist spends on gasoline for such a journey. A conclusion is drawn that a per-kilometer congestion charge could become a comprehensive tool for solving the problem of commuter trips and daytime parking in Yekaterinburg. The fast payback period of the project would make it possible to invest revenue in public transport and road improvements in the city. The scheme would help level out the load on the road network, reduce road wear and rationalize the use of limited parking space, thus generating additional positive effects that are not covered in this article.

Keywords: satellite system, per-kilometer charge, traffic congestion, city center.

1 IMPORTANCE OF THE PROBLEM

More and more cities in Russia are forced to consider using a specific fiscal instrument – congestion charge - as a solution to the problem of increasingly congested roads.

The issue is a highly sensitive one for city dwellers who now own one car per adult household member as a result of the 25 years of accelerated car fleet growth in Russia and are used to commuting to work

by car. During the daytime, cars are parked by the roadside near their workplace, obstructing the movement of public transport and other vehicles. At the same time, motorists are equally unhappy with traffic congestion that keeps getting worse in the central areas of Russian cities. This highlights the relevance of finding a solution to traffic congestion problems in cities.

There is a burning need in all Russia's cities to work out effective fiscal and administrative measures for regulating the development of different modes of urban transport. When doing this, one should carefully assess the implications of changing the structure of transport and the short-term and long-term effects of changing the structure in terms of environmental impacts. The main goal of such regulation should be reducing the use of private vehicles in the urban environment and increasing the use of various modes of public transport.

One of the key factors influencing urban transport habits is the ratio of public transport fares to the cost of traveling by car. The cost of a car trip should be much higher than the price paid for going to the same destination by public transport, all transfers included. Fiscal instruments of regulation prove the most effective for creating price disproportion. The sum total of transport-related charges that car owners pay when possessing and using their vehicles in a city should be fiscally significant and as close to the time of using parking facilities and the road network as possible. In this case they will produce a number of socially significant effects.

First of all, they will curtail the use of private cars in the urban environment through a higher cost of travel. Second, environmental and noise pollution will improve thanks to traffic reduction. Third, additional funds obtained from transport-related charges will help expand the road network in the city. Fourth, additional subsidies and growing ridership will result in improvements to public transport.

No Russian city has introduced a congestion charge as yet, but many of them are starting to discuss the issue in the face of growing pressure on road networks. Moscow leads the way on the matter, having reached the point when the actual timeframe of introducing a road pricing scheme is being discussed. The public opinion in Moscow appears to have embraced the measure. For example, a poll conducted in the autumn of 2014 showed that 49% of car owners and 54% of those who use public transport approved of such a charge being introduced in some districts of Moscow. The authors are not aware of any practical calculations or assessments of the effects of congestion charge implementation having been performed so far.

The purpose of this study is to assess the fiscal significance of the introduction of a per-kilometer congestion charge in Yekaterinburg.

2 LITERATURE REVIEW

Vickrey (1959, 1963) and Walters (1961) gave a formal rendering to Pigou's ideas (1912, 1920) of using the marginal social cost in the case of road congestion. Vickrey's pioneering idea voiced back in the 1960s was the substantiation of electronic toll assessment (Vickrey, 1963).

A theoretical framework for congestion pricing is built upon the concept of roads as an exhaustible public good the use of which is regulated by means of a fee (Parry & Bento, 2002). A congestion toll should be designed to internalize the externalities that drivers create when forcing others to slow down. Hau offers a brilliant comprehensive summary of the road pricing theory (Hau, 1992; Hau, 1994).

In a general case, the congestion charge should reflect the quantitative characteristics of traffic congestion. Some studies indicate that fuel taxes alone are imperfect instruments for internalizing externalities caused by road congestion, especially when congestion is a common and widely spread issue (Small, 1993).

Congestion fees are a more effective instrument that could supplement fuel taxes. Congestion fees could differentiate by traffic density (measuring the average flow speed), time of day, quality of road infrastructure etc. Additionally, clogged intersections are an important feature of traffic congestion in downtown areas, so marginal congestion costs differentiate by road and intersection as well as time of day (Newbery, 2005; Santos and Newbery, 2001; Newbery, 1990)

In a majority of Russian cities, the cost of having road infrastructure as a public good is now shifted to other users (Parry & Bento, 2002). The issue of urban road pricing in Russia has seen little progress so far, primarily because of the lack of developed road networks in practically all cities. The Western experience of implementing road pricing schemes has not been promoted to the public.

London, Milano, Rome, Singapore, and Stockholm are the most successful and well-studied cases of congestion fees internationally (Phang & Toh, 2004; Verhoef & Small, 2004; Leape, 2006; Mackie, 2005). There are several different models of congestion pricing.

London (2003 – present) and Trondheim (1991-2006) implemented a daily charge system. The system features a stable approach to road pricing that is not pegged at any external factors. There is a one-off daily charge that allows motorists to leave and enter the charging zone as often as they like. The charge is paid before entering the charging zone; there are no tollbooths. Those who do not pay will get a penalty charge notice. The penalty collection system generates high administration costs. The single daily charge scheme is viable in cities where traffic jams are not limited to a certain time of day, that is, when the speed in heavy traffic does not vary much throughout office hours.

In 2006, Stockholm introduced a daily congestion tax that differentiates by time of day. That system that is still effective today envisages that the amount of tax payable depends on what time of the day a motorist enters or exits the congestion tax area. Motorists are billed for the preceding month's control point passages. The bill fully replicated a conventional utility bill. It is a high-cost system that can prove effective in cities where congestion and speed vary considerably during office hours.

Electronic Road Pricing (ERP) is an electronic toll collection scheme that was first implemented in Hong Kong (1983-1985) and then in Singapore (1998 – present). The system stands out thanks to flexible pricing, with the charge for the use of roads being different at different times of day and different speed of vehicles. The system also boasts low administrative and labor costs. It is the easiest for comprehension for motorists because the system automatically deducts the usage fee from pre-paid smart cards when a car passes an ERP gantry. Each vehicle must be fitted with an in-vehicle unit (IU). The system deducts the fee each time the vehicle enters the charging zone. An ERP system could be effective in cities that seek to minimize traffic volume in the charging zone when the average speed of vehicles is the lowest.

Distance-based pricing. A satellite-based system was trialed in Singapore in 2012 and is now being piloted in some US states. Singapore is planning to convert to it by the year 2020. The system detects vehicles when they enter the congestion charge zone, monitor the distance they travel and the time they spend in various districts of the city. The system can charge motorists according to the time of day or the travel area and automatically enforce parking charges.

3 MATERIALS AND METHODS

The authors make an attempt at assessing the fiscal significance of introducing a distance-based congestion charge Yekaterinburg, a major industrial city of Russia. It is an industrial city with a 1.5m-strong population and 450,000 automobiles. The average monthly wage in Yekaterinburg is 715 dollars, which is rather low by European standards. This serves as a natural restrictive factor for the basic rate of the congestion charge.

According to TomTom Traffic Index, Yekaterinburg has a congestion level of 34% and ranks 52s in terms of traffic jams. This index shows the increase in overall travel times when compared to a Free Flow situation. For example, a Congestion Level of 34% corresponds to 34% extra travel time for any trip, anywhere in the city, at any time compared to what it would be in a Free Flow situation.

Congestion in Yekaterinburg is particularly severe at heavy traffic periods between 0730 and 2030 on weekdays. Daily peak loads occur between 0730 and 0930 and between 1730 and 1930. From 0930 and 1730, traffic usually reaches four points on a 1-10 scale.

The main cause of congestion is daily commuter traffic. People using their cars to go to work or school generate traffic jams during rush hours. Vehicles parked in the city streets during the daytime leave roads narrower. Towing away cars from the city streets has not proved ineffective. A distance-based road pricing scheme could become a comprehensive tool for solving the problem of commuter trips and daytime parking in Yekaterinburg.

The calculations performed in this study proceeded from an assumption that a per-kilometer charge should trigger changes in motorists' transport behavior, but avoid radical opposition. Therefore, the size of the per-kilometer fee was designed to match the cost of gasoline. There is supposed to be no charge on Saturdays, Sundays, public holidays, nor during the night time periods.

4 ANALYSIS OF RESULTS

From a broader perspective, the fiscal significant of road pricing could be assessed from the point of view of the city authorities and that of motorists.

When performing the calculations, it was stipulated that public transport was exempt from paying the congestion charge. A satellite-based tolling system that is being currently deployed in Singapore was accepted as a model one. Tolling road users by distance, it also capable of executing sweeping control over driver compliance with speed limits and parking regulations and issuing speed and parking tickets. (Mayburov and Leontyeva, 2016; Mayburov & Leontyeva, 2017).

The calculations indicate that the minimum fiscal burden on motorists would not be high. The minimum charge amount equals the basic daytime fee. Commuter traffic does not occur in the afternoon, so motorists should be charged less. The minimum daily amount payable should be RUB34.6 per car, which is less than 30% of what a motorist pays for gasoline to make the journey. This is a fairly small sum of money that could trigger certain, but not radical changes in motorists' transport behavior.

Driving during peak times should incur a higher charge, resulting in more drastic changes in the behavior of motorists who commute daily. The charge coupled with automated parking fee collection should transform the transport preferences of this group of motorists and encourage them to use public transport.

No	Indicator	Value	Notes
1	Total cost of ERP system roll-out		including control system equipment and in-vehicle units
	million dollars.	300	
	billion roubles.	17.1	Exchange rate RUB57/1 USD.
2	City traffic		
	Average daily mileage per car	38	Findings of Klakson newspaper poll
	Number of cars in the city,	451,700	Yekaterinburg
	Daily city car mileage, thousand km/day	17,165	
	Annual city car mileage, million km/year	6,265.2	
3	Payback period, years	3	Determining minimum payback period is needed to make the project more attractive to investors
4	Yearly revenue from congestion charge to meet payback period target, billion roubles	5.7	
5	Minimum size of congestion charge, RUB/km	0.91	
6	Minimum daily amount charged per car, RUB/day	34.58	
7	Minimum yearly amount charged per car, RUB/year	9,300	
8	By comparison:		
	Daily average cost of gasoline (at average fuel consumption of 8L/100km and average price of RUB40/L), RUB/day	121.6	

Table 1. Table 1. *Financial aspects of introducing an electronic road pricing system in Yekaterinburg*

5 CONCLUSION

A satellite-based per-kilometer road pricing system appears to hold the biggest promise for deployment in Russian cities, Such a system could have a comprehensive effect in terms traffic speed management, control over compliance with speed limits and parking regulations.

Having varied rates of the charge in place that differentiate by time of day and traffic speed would help level off traffic peaks during morning and evening hours.

The initial burden on the local budget is substantial because of the need to bear the cost of installing and maintaining the control and charging system. The investments will, however, recoup rather quickly. Moreover, additional income can be earned if the congestion charge also targets freight vehicles and parking and speed limit controls are enforced, too. The system could help balance the load on the road network, reduce road wear and rationalize the use of limited parking space, thus generating additional positive effects that are not covered in this article.

The payback period of three years would make it possible to invest revenue in public transport and road improvements in the city. Additionally, the system could provide a strong impetus for public transport services that will see a surplus demand.

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BIG DATA IMPLEMENTATION LEVELS IN ORGANIZATIONS: A THEORETICAL PROPOSAL

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ABSTRACT

The evolution in the data and information management has led to a change in the way organizations make data-driven decisions, given the increase in the robustness and complexity in the data generation in this era governed by social networks, intelligent devices, automation, virtual assistants and other technologies that have changed how we communicate, work and live. To face these challenges, organizations need an understanding of the impact that Big Data and their related technologies have on their processes, how they affect organizational decision-making, and what methods, techniques, and human factors have emerged from the Information Systems (IS), Big Data, Data Science, and Industry 4.0 perspective to face these challenges. For this reason, this paper will present some factors that organizations must take into account to get the resources, capabilities, and skills required to extract value from Big Data. Taking these factors as a starting point we propose different Big Data implementation levels and its associated technologies in an organization. Later, this proposal may serve as a basis to generate a measurement scale of Big Data implementation or to derive criteria selection for case studies of Big Data application, contributing this way to go further in Big Data theory.

Keywords: Big Data, Information Systems, Maturity levels of Big Data application

INTRODUCTION

The value creation in an organization is increasingly linked to the data processing and knowledge creation, a phenomenon that has been present since the 90's when the transition from an economy dedicated to the raw material transformation to an economy focused on information flow and processing became more evident, being the fundamental reason new organizational forms respond to this need (Child, 2015). Given this reason, the data and information ceased to be a static asset stored in databases that are only consulted when the organization requires some type of analysis or to make some decisions, to become a vital renewable resource that is not easily divisible, it's not scarce and increases its value as its use increases (Glazer, 1993).

The importance acquired by data and information has led to an evolution in information systems and technologies (IS and IT), promoting important changes in organizations, considered something as big as the first industrial revolution (Orlikowski and Barley, 2001). In organizations, IS and IT are resources that are ubiquitous today (Dewett and Jones, 2001), implemented with the aim of improving the efficiency of the organization (Hevner et al., 2004). The value of IS and IT in the organization will depend on the usefulness of the information they offer (Hilton, 1981), utility determined by the characteristics of the organization, its work system, culture, employees and their capabilities in the development and implementation of methodologies (Hevner et al., 2004).

In recent years, data collection and analysis has reached levels that are not manageable through traditional IS and IT, becoming what we know today as the era of Big Data. This term didn't become popular until 2011 when specialized companies presented computational solutions to the problems exposed by organizations in the handling of large amounts of data (Gandomi and Haider, 2015). Big Data reached its exponential growth in 2012, where it was a central subject in the World Economic Forum and where the United States announced an investment in Big Data research for 200 million US dollars (Lake and Drake, 2014). Due to the introduction of new IS and IT to address Big Data problems, Big Data became one of the major contributors for decision making and knowledge creation, since high-speed data allows analyzing data and information in real-time for making decisions and simultaneously limiting the excess of information that has no value (Intezari and Gressel, 2017). Moreover, Big Data leads organizations to build their knowledge-based strategy for a better understanding of organizational changes based on their environment (Kaivo-oja et al., 2015). Given these reasons, Big Data has acquired great importance in organizations aiming at the creation of knowledge, obtaining value and establishing competitive advantages (Fosso Wamba et al., 2015).

Therefore, to understand the capabilities, skills and human factors required by an organization to create knowledge, competitive advantages and value through the use of Big Data, we study this phenomenon and structure this paper from four theoretical perspectives, covering information systems, Big Data attributes and Analytics, Data science and Industry 4.0 technologies. Once concluded the theoretical analysis in these four fields, we suggest a framework that describes Big Data implementation levels in organizations, establishing which factors an organization must have to belong to a certain level. This framework may represent a first step for future research in the Big Data field, as it may become the cornerstone to create a measurement scale of Big Data application or also be employed to derive criteria selection in Big Data application case studies. This proposal represents a first stage of a wider research project carried out by the authors to find how Big Data and Industry 4.0 may affect the organizational structure through changes in organizational knowledge management processes and dimensions.

ELEMENTS FOR BIG DATA IMPLEMENTATION LEVELS

In order to build the framework of Big Data implementation levels in organizations, it is necessary to set the elements to take into account in order to define the categories and dimensions that will be part of our proposal, therefore, we describe below the theoretical concepts taken into account to develop the framework, corresponding to the categorization of Information Systems, Big Data attributes, Big Data Analytics, Data Science, and Industry 4.0 technologies.

Information Systems Categorization

One of the most important benefits of the use of IS in organizations lies in their ability to link employees and empower them to make decisions (Dewett and Jones, 2001), supplanting in organizations much of the coordination and control mechanisms of the hierarchy, creating opportunities for new organization forms to focus on processes instead of functions (Zammuto et al., 2007). Therefore, organizations that invest in IS and adopt these new forms that promote their use, have a positive effect on innovation and knowledge performance and capabilities (Tsoukatos et al., 2017), to the disruptive changes in the markets, to globalization and the demographic changes that a sector may suffer (Dewett and Jones, 2001). Due to this important role of IS, and based on the authors (Cohen and Asín, 2013; Lapiedra and Devece, 2012; Laudon and Laudon, 2011; Stair and Reynolds, 2010) definitions on the different types of IS that organizations can have, we have elaborated the following categorization to understand the usefulness of the most important IS in organizations.

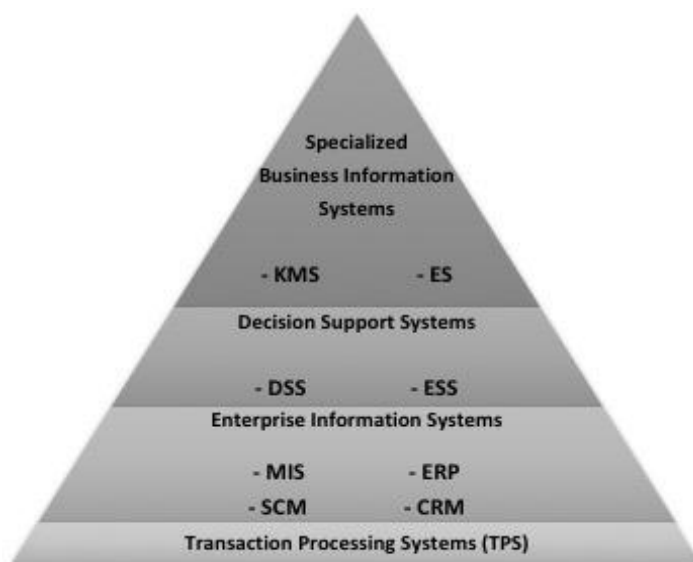


Figure 1. *Information Systems Categorization.*

Given the importance of traditional IS for organizations, the first three levels of the proposal will focus on these IS, with the aim of describing an evolution from the most basic IS to the most advanced existing systems.

Big Data Attributes

Big Data is a term that today is ubiquitous in various fields of science and in organizations, however, its origin is not known with certainty (Gandomi and Haider, 2015; Mishra et al., 2017). Nevertheless, the authors (Diebold, 2012; Frizzo-Barker et al., 2016; Gandomi and Haider, 2015; Günther et al., 2017) agree that the Big Data concept basis lies in the work of (Laney, 2001), and although it's not a paper on Big Data, this paper described the three main dimensions to face the challenges of data management, known today as the three main attributes (the first 3 V's) of Big Data. These first three attributes are described below.

- Volume: refers to the growing magnitude of the data generated or collected by the transactions of an organization, people or globally (Gandomi and Haider, 2015; Laney, 2001), having an exponential increase since 2000 as a result of the global deployment of the Internet (Bumblauskas et al., 2017; Russom, 2011).
- Velocity: refers to the increase in the frequency with which the data are generated or collected (Katal et al., 2013; Laney, 2001; Lee, 2017; Russom, 2011). The growing popularity of smartphones, devices, and sensors connected to the internet is the main reason for this phenomenon and has required new systems capable of collecting and analyzing in real-time this increase in data generation speed (Gandomi and Haider, 2015; Lee, 2017; Russom, 2011).
- Variety: refers to the heterogeneity (or lack of it) of a data set and to the increasing diversity of sources from which it can be obtained (Gandomi and Haider, 2015; Russom, 2011). Variety is one of the main problems of data management due to format incompatibilities, non-alienated data structures and inconsistency in the semantics of data presented in large data sets (Laney, 2001). There are three types of data according to their structure: structured data, semi-structured data and unstructured data (Lee, 2017; Russom, 2011).

Based on the above attributes, companies that offer computational solutions in the Big Data sector included more attributes to describe phenomena that occurred with large data volumes and that were not described within the first three attributes (Gandomi and Haider, 2015; Kshetri, 2014; Lee, 2017; Mishra et al., 2017). The fourth attribute introduced is Veracity, that refers to problems of quality or integrity of the data coming from the different sources (Zikopoulos et al., 2013). The fifth attribute is Variability, that refers to the inconsistency in the speed of data flows, triggered by temporary events that affect the amount of data collected (SAS Inc., 2013). And the sixth attribute is Value, that refers to the variation in the economic value acquired by the data (Dijcks, 2013).

However, the literature on the subject of Big Data has not stopped in the intention to establish more attributes that explain the meaning of Big Data, and according to the author (Firican, 2017), four additional attributes are necessary to address the phenomena and challenges that bring Big Data

initiatives. The four additional attributes described are: Validity, Vulnerability, Volatility and Visualization.

Therefore, taking into account definitions of authors such as (Fosso Wamba et al., 2015) and the attributes described above, we can establish that Big Data is a term associated with the quantity and complexity growth of data obtained through a great diversity of sources, whose attributes leads to rethinking the way in which data is collected, stored, processed and managed in an organization, in order to acquire greater knowledge, improve performance and achieve competitive advantages. These Big Data attributes are an important part to understand the implications that this phenomenon has for organizations and will be useful to understand the other elements of the proposal.

Big Data Analytics

Big Data Analytics are advanced tools, methods and techniques for the capture, storage, transfer, exchange, search, analysis and visualization of large volumes of data transmitted at a high-speed to get useful information for the organization (Duan and Xiong, 2015; Gandomi and Haider, 2015; Russom, 2011). One of the main elements to build of the proposal focuses on the different BDA methods, so we will draw on the authors (Sivarajah et al., 2017), that identified and classified these analytical methods in three main groups based on 115 papers as follows.

- Descriptive analytics: is the simplest form of BDA methods, and performs an analysis of data collected in the past to get patterns description and relationships with simple statistical methods, such as the mean, mode, frequency, and variance.
- Predictive analytics: it is a BDA method that includes several statistical techniques and models to forecast future results based on historical and/or current data.
- Prescriptive analytics: it is a BDA method that seeks to find the cause-effect relationships between the results obtained from the predictive analytics method, optimizing the business process models through complex simulation and optimization techniques.

As a consequence of the BDA methods, many BDA tools have emerged since traditional computational infrastructures cannot handle the Big Data attributes (Fan et al., 2014). These tools are classified according to the data analysis level that the organization wants to reach, and authors like (Wang et al., 2016) classify them into three generations according to their level of complexity, as described below.

Type of BDA Tool	Characteristics
First Generation Batch Processing Tools (2006 – 2010)	Large amount of static data Scalable solutions Volume
Second Generation Stream Processing Tools (2010 – 2014)	Real-time data flow Low latency Velocity
Third Generation Hybrid Processing Tools (2014 – Present)	Lambda Architecture Volume + Velocity

Table 1. *Types of BDA tools. Adapted from (Wang et al., 2016)*

The BDA methods and tools previously exposed will be an important part to define some categories and dimensions of the Big Data implementation levels in organizations.

Data Science

Data science is a set of principles for the extraction of information and knowledge from data, through qualitative and quantitative methods, processes and techniques of observation, the development of theories, systematic analysis, hypothesis evaluation and rigorous validation, with the objective of solving relevant problems, making decisions and predicting results (Ahalt et al., 2012; Provost and Fawcett, 2013; Waller and Fawcett, 2013). The data scientist emerged from data science as a highly trained professional with in-depth knowledge and analytical skills in the field of data science and Big Data (Davenport and Patil, 2012; Waller and Fawcett, 2013).

The data scientist must be a person close to the rest of the organization in order to understand the problems and communicate the solutions, however, the analytical thinking should not be exclusive of the data scientist, since the rest of the personnel should have notion of the principles of data science and Big Data to take advantage of the resources and solutions provided by these fields, to such an extent that in organizations that handle data science and/or Big Data, analytical thinking must become part of the organizational culture (Carillo, 2017; Provost and Fawcett, 2013).

The existing connection between the data scientist and the rest of the organization must occur in particular with the executives and decision-makers in charge of the products and services of an organization (Davenport and Patil, 2012), in such a way that companies Worldwide have seen the need to create a new group of executives capable of understanding and leveraging the benefits of data science and Big Data. Within this new group of executives, the "Chief Data Officer" (CDO) stands out, in charge of managing Big Data at the executive level and aligning it with the business strategy, the "Chief Technology Officer" (CTO) in charge of identifying applicable technologies to products, services,

and processes, and the "Chief Marketing Technologist" (CMT), in charge of all the marketing activities of the organization related to new technologies (Carillo, 2017). The data scientists and executives that have emerged from Big Data and data science determine an important part of the human factors considered for the Big Data implementation levels.

Industry 4.0 Technologies

Organizations are currently experiencing a change in the ways they create competencies and capabilities as a result of the arrival of the fourth industrial revolution, Industry 4.0, which corresponds to an era dominated by cyber-physical systems of manufacturing and innovation in the services offered by an organization (Lee et al., 2014). Integration of different information technologies is an important capability in organizations to achieve a digital transformation, skills needed to create value for customers (Del Giudice, 2016). The technologies that have gained most importance and interest for organizations in the era of Industry 4.0 are the following.

- Cloud Computing: are computational, network and storage resources offered as services through the Internet, with the objective of reducing the operational and financial burden to an organization that requires an information system with a capacity greater than the installed capacity (Rehman et al., 2016).
- Artificial Intelligence: are computer systems and machines that demonstrate intelligence characteristics, with capabilities to learn and apply knowledge of experience, understand, process and manipulate information, handle complex situations, solve problems with missing information, establish priorities and react quickly and correctly in front of new situations (Stair and Reynolds, 2010).
- Internet of Things: also known as the Internet of Everything or the Industrial Internet, refers to the interconnection and communication between humans, machines, and devices capable of interacting with each other through the Internet (Dijkman et al., 2015; Lee and Lee, 2015). One of the main applications of IoT for organizations is in the field of Big Data and BDA (Lee and Lee, 2015), considered as interdependent technologies (Chen et al., 2014).

The integration of these and other technologies of Industry 4.0, allows to establish the level of adoption of advanced data processing technologies in an organization, for this reason, will be an important part in the proposals categories and dimensions.

BIG DATA IMPLEMENTATION LEVELS IN ORGANIZATIONS

Based on the information systems classification described above and the different tools, methods, systems and technologies associated with Big Data that an organization can adopt, in this research we

propose different Big Data implementation levels in organizations, starting with a level Big Data Transition, a level of Big Data Basics, an Advanced Big Data level and a superior level to what we have called "Evolutionary Big Data". For each of these levels, we have defined five categories with their respective dimensions (i.e. Big Data organizational implication, human factors, analytics methods used, type of BDA tool used and information technologies integration), which describe the characteristics that an organization must have to match with a level. Therefore, below, we present our framework of Big Data implementation levels in organizations.



Figure 2. *Framework of Big Data Implementation Levels in Organizations.*

Next, we detail the specific elements of each level according to the five dimensions mentioned above (see table 2).

<i>Level</i>	Big Data Organizational Implication	Human Factors	Analytics Methods	BDA tools	Information Technologies Integration
1	The organization has not yet adopted any form of Big Data and only basic forms of data analysis	Employees and managers are trained to manage transactions in an IS	Simple statistical and mathematical methods	N/A	Integration of computers and servers
2	The organization performs internal data analysis to make reports, without reaching Big Data levels	Employees and managers are trained to manage and share data and information through the IS with internal and external actors	Advanced statistical and mathematical methods	N/A	Integration of tracking technologies such as barcode or RFID
3	The organization understands the importance and performs data analysis to make decisions and create knowledge, without reaching Big Data levels	The organization has personnel and departments specialized in the management and maintenance of IS and IT. Employees and managers are trained in decision making and knowledge management through the use of IS	Descriptive analytics methods with a low or medium volume of data	N/A	Integration of technologies for the improvement of data processing, such as high-performance hardware, high storage capacity, and process monitoring systems, such as sensors and surveillance systems
4	The organization establishes the necessary resources and capabilities for the adoption of systems and technologies associated with Big Data, selecting the priorities and needs of the organization	The organization incorporates or is in the process of selecting or training personnel competent in BDA methods, techniques and tools and data science. A training plan is established throughout the organization for the use of Big Data in the organization processes	Descriptive analytics methods with a medium or high volume of data	Batch processing	Integration (in process) of some technologies for the Big Data processing, such as some basic tools of Cloud Computing or Artificial Intelligence
5	The organization has the basic resources and capabilities to use and manage the techniques, methods and tools of BDA. The culture of analytical thinking begins to spread throughout the organization and more decisions are made in middle management	A specialized department in charge of carrying out the analysis and extraction of data value is created in the organization. The personnel and executives understand and incorporate the new knowledge extracted from Big Data in their daily processes and activities	Descriptive or predictive analytics methods with a large volume of data (depending on the organization)	Batch processing or Stream processing. (depending on the organization)	Integration of Big Data solutions based on Cloud Computing or Artificial Intelligence for data analysis
6	The organization adopts advanced KM and DSS systems that integrate BDA's techniques, methods and tools. The	The organization incorporates executives with specific knowledge in Big Data and data science, such as CDO's	Descriptive or prescriptive analytics methods with large volumes	Stream processing or Hybrid processing. (depending on	Integration of customized solutions through the combination of Cloud Computing,

<i>Level</i>	Big Data Organizational Implication	Human Factors	Analytics Methods	BDA tools	Information Technologies Integration
	process of automation of certain decisions begins and analytical thinking is already part of the organizational culture	and CTO's. All employees and executives are trained in the management of some methods, techniques and tools of BDA	of data in real time (depending on the organization)	the organization)	Artificial Intelligence technologies, among others
7	Systems and technologies have the ability to evolve on their own to adapt to changes in the organization, automating operational decisions in real time. The decentralization of decisions is complete and the organization is completely connected to its environment	Employees and executives have the capabilities to control and interact with data in real time through advanced data analysis and visualization systems. The personnel of the organization use the systems and technologies to enhance their operational and cognitive abilities	Prescriptive analytics methods with large volumes of data in real time	Hybrid processing with advanced Lambda architecture	Integration of various technologies that make up Industry 4.0, such as IoT, Cloud Computing, Artificial Intelligence, among others

Table 2. *Dimensions of Big Data Implementation Levels in Organizations*

We can observe that each dimension increases in intensity as the levels increase, due to the fact that our proposal implies that a higher level embraces the characteristics described in the previous level so that the dimensions and levels are cumulative. We must note that the levels and dimensions are susceptible to not being fulfilled in its entirety, given the great variety of ways to implement this type of systems and technologies, so that cases may arise in which an organization may fall into different levels depending on the dimension. However, we propose that to consider that an organization is in a certain level it must fulfill a large part of the dimensions described.

CONCLUSIONS AND FUTURE RESEARCH

Big Data and BDA have become almost a necessity for organizations, where data has become the protagonists for value creation, get competitive advantages and improve performance. However, many organizations do not have the capabilities, skills or technologies to make the most of Big Data, especially in small and medium enterprises, where the level of investment in technologies, systems and human capital to take advantage of Big Data is more reduced compared to large companies. Despite this situation, and as with all applications of this type, the systems and technologies associated with Big Data will be increasingly accessible and will have a better adaptation to the particular needs of each organization, which will allow them to benefit from Big Data application.

The main contribution of this paper focuses on the theory development for Big Data information systems implementation in an organization, establishing the different organizational and technological parameters to consider to carry out advanced data analysis. Moreover, this proposal will allow future

and diverse research in the fields of Big Data and organizations to clearly categorize the companies under study according to their information systems and Big Data advancements, thus achieving a higher level of rigor for case studies selection.

This paper has basic implications for academicians, mainly. First, it may become a basis to generate, through a quantitative empirical study, a measurement scale of Big Data maturity application. To do so, the proposed dimensions in our framework should be operationalized and tested. And secondly, from a qualitative perspective our proposal may be used to define selection criteria in Big Data application case studies. In both cases, our framework represents a first effort to facilitate the development of future research in the Big Data arena.

With respect to the limitations of this manuscript, it is noteworthy that our proposal lacks of empirical support as it is only based on theoretical revision of specialist literature. In addition, we have considered five important dimensions or factors to define the levels of Big Data application. Nevertheless, our literature review may have overlooked other important factors or elements that also may play an important role when implementing Big Data in the organization (e.g. the competitive strategy of the company).

The limitations detailed above may represent an important starting point for future research. So, as suggested in the prior paragraph, we could continue this work by empirically testing the framework we propose in this manuscript. Also, we could deepen into the knowledge of Big Data application through the design and implementation of an exploratory qualitative study (e.g. case studies) to identify other important additional factors that may affect Big Data application, in general, and the firm's competitive strategy, in particular.

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THE ARCHAEOLOGICAL ZONE IN THE CONSTITUTION FOR THE OCEANS

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ABSTRACT

The United Nations Convention on the Law of the Sea, called by the doctrine "Constitution for the Oceans", has resulted from an important codification of this branch. The text, comparable to the formal Constitutions of the States, has introduced essentially a new zone. It is about a subcategory of the contiguous zone, called "archaeological zone", which the doctrine tends to consider as a rather autonomous zone. This novelty has implicated an anthropocentric modernization of the branch of the law of the sea. Monuments beyond this eventual zone, mainly in the continental shelf, are found in a "grey zone", let alone the fact that underwater cultural heritage is occasionally understood as goods with a purely economic value. For this reason, the UNESCO Convention on the protection of underwater cultural heritage was adopted in 2001 and put into force, since 2009, although a limited number of States, such as the archaeological countries of Italy and Egypt, has ratified it. Anyway, the "archaeological zone" should be promoted to a clearly consecrated autonomous zone of the law of the Sea, namely independent to the contiguous zone.

Keywords: Archaeological Zone, Constitution for the Oceans, Contiguous Zone, Law of the Sea, Territorial Sea, Underwater Cultural Heritage

INTRODUCTION

The Law of the Sea constitutes a branch of public international law, endowed with a very great tradition, to date. Till the 17th century, the regulations on the sea were based on the practice of the people of the sea, exemplified by shipowners and merchants (Roukounas, 2006). The new era has to do with various social groups making use of the sea, mainly on the basis of the principle of freedom of the High Seas. One of these social groups consists in tourists, although this term is not always socially accepted against the "decent" term of travellers (Vainopoulos and Mercier, 2009). The United Nations Convention on the Law of the Sea (UNCLOS), concluded in 1982, constitutes the first attempt to codify the Law of the Sea, in a single text. Therefore, this text is comparable to the formal Constitutions of the sovereign States, that is why the doctrine has called it "Constitution for the Oceans". As modified, it

includes all institutions of this branch, with the unique exception of a relatively new zone, of customary origin. It is about the Exclusive Fishery Zone (EFZ), which secured increasingly wider support after the 1945 Truman Coastal Fisheries Proclamation (Molenaar, 2015). Well before the entry into force of the UNCLOS – probably by the early 1970s – a coastal State's entitlement to sovereign rights and jurisdiction for fisheries purposes within a 200-nautical mile (nm) EFZ had crystallized into customary international law. The current paper focuses on a zone being newer than the EFZ and having the same age with the Exclusive Economic Zone (EEZ), previewed for the first time in the Constitution for the Oceans. Anyway, it could be comparable to both these zones, which have to do (mainly or exclusively) with fishery. So, antiquities and economy, particularly the fishing sector of the economy, have become the major legal goods implicating the recent modernization of the Law of the Sea. If monuments make part of a wider scope of modernization, which is their particular impact on the development of this branch?

We suppose that the archaeological zone constitutes an anthropocentric modernization of the Law of the Sea.

ZONES PRIOR AND RELATED TO THE ARCHAEOLOGICAL ZONE

According to article 8 par. 1 of the UNCLOS, *“Except as provided in Part IV, waters on the landward side of the baseline of the territorial sea form part of the internal waters of the State”*. The notion of the internal waters must do mainly with ports (comprising not only a sea zone but also a land one) and historical bays.

The territorial sea is a crucial one, typical of the current period of the history of the Law of the Sea. In the 17th century, the international law of the modern history emerged, as maritime States like Venice expressed their interest to govern in the sea place (Roukounas, 2006). The *“Symbolic wedding of Venice with the sea”*, a nice wall-painting created by the famous Italian painter Jacopo Tintoretto (1518-1594), inaugurated a new era in the relations between the State and the Sea. The first of the two legal targets of this era consisted in the extension of the State sovereignty at the sea, through the creation of the *“territorial sea”*. The second target was to ensure the right of coastal States to navigate in areas beyond their jurisdiction, through the prevision of another zone, the High Seas. This set of unwritten norms covered the needs of navigation and ensured both national defense and fishery for the coastal States. This 4-century regime had also a liberal character, as for the navigation and the fishery in the High Seas. However, it is notable that this general principle of freedom of the High Seas was formed mainly in favor of those States that were endowed with big fleets: the recipe had to do with a system of limited territorial sea and of free High Seas.

This concept went on at least till 1958, when 86 States adopted four important Geneva conventions on the Law of the Sea. For instance, not only did Italy (unified in 1861) have a three-nautical mile

territorial sea but also it has a great tradition relevant to train infrastructure. Indeed, when the unification occurred, in the national territory there were only 2.000 km of railway lines. Nevertheless, in 1896 the number had risen to 160.000 km, following the extension of the iron and steel industries (Behan, 2012). Italy is endowed with a rail network, of which the Southern part is slightly distant from the coastline of the Eastern side of the peninsula. Why the State avoided the train natural proximity to the coastline of the Adriatic Sea, which was so familiar to it?

Because it wanted to be protected by eventual attacks of a foreign fleet, which could bomb the trains in a rather safe way, at least if it had entered the territorial sea. It is notable that the three-nautical mile breadth of the territorial sea was consecrated, due to the abovementioned range of cannons. The fear of the fascist regime of Italy reached the point of equipping trains with cannons. Lastly, the Greek town - port of Igoumenitsa, nearby the Adriatic Sea, was thoroughly damaged by the Italian armed forces during World War II, due to its strategic importance.

The first Geneva convention of 1958 had to do with the territorial sea and the contiguous zone. In a similar way, the UNCLOS in article 33 regulates the contiguous zone, as follows:

"1. In a zone contiguous to its territorial sea, described as the contiguous zone, the coastal State may exercise the control necessary to: (a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea; (b) punish infringement of the above laws and regulations committed within its territory or territorial sea. 2. The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured".

The doctrine considers contiguous zone as a part of the High Seas, based on the aforementioned formulation ("in a zone contiguous to its territorial sea") (Roukounas, 2006). It is to point out that contiguous zone is ruled by an intermediary legal status, between the completely different regimes of the territorial sea, in which foreign ships are endowed with the right to innocent passage, and the High Seas, ruled by the principle of freedom.

In December 2002, the number of States endowed with a contiguous zone was 69, a datum which could not be ignored (Alexopoulos and Fournarakis, 2015). For instance, in the Mediterranean this is the case of Italy, Spain and Malta (Roukounas, 2006). More concretely, Italy has not established an EEZ but it established a contiguous zone till the 24th nautical mile, by Act No. 189 of 2002.

THE ARCHAEOLOGICAL ZONE

Greece makes part of the so-called "archaeological countries" along with Italy and Egypt. In 1980, this country, along with Italy, Capo Verde, Malta, Portugal, Tunisia and Yugoslavia, proposed the creation of a cultural heritage zone that could not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. As other States, like the USA and Holland,

did not accept that proposal, a compromise was achieved on the matter. It is about the “archaeological zone”, introduced for the first time by article 303 “Archaeological and historical objects found at sea”, of the UNCLOS. According to this article:

“1. States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose.

2. To control traffic in such objects, the coastal State may, in applying article 33, presume that their removal from the seabed in the zone referred to in that article without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article.

3. Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty, or laws and practices with respect to cultural exchanges.

4. This article is without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature”.

First of all, it is to point out that quite paradoxically the term “archaeological zone”, which was introduced for the first time by Tullio Treves in 1980 and is nowadays a frequent term in the level of the doctrine, is inexistent in both the UNCLOS and the UNESCO Convention for the Protection of Underwater Cultural Heritage. This formally “anonymous” zone constitutes a potential subcategory of the traditional institution of the contiguous zone. It may not extend beyond 24 nautical miles from the baselines from which the breadth of the contiguous zone is measured. This regulation was interpreted by a part of the doctrine in an unclear and not convincing way, opposite to the potential “operational interests” of Greece on the matter: according to this concept, Greece has a 6 nautical mile territorial sea and therefore it cannot acquire an archaeological zone (or a “contiguous zone” endowed with the status of archaeological zone) with a breadth superior to 6 nautical miles (Roukounas, 2006). According to the valid approach of the doctrine, if the territorial sea of a State has a breadth of 12 nautical miles (which is the maximum permitted as well as the common practice of almost all the Mediterranean countries and of the clear majority of the rest countries), it can have a contiguous zone of inferior or equal breadth. If the breadth of the territorial sea of a State is inferior to the limit of 12 nautical miles, the breadth of the contiguous zone may be superior to 12 nautical miles. More precisely, Greece having a territorial sea of just 6 nautical miles may create either a contiguous zone or merely an archaeological zone having a breadth till 18 nautical miles maximum (Alexopoulos and Fournarakis, 2015).

THE UNESCO CONVENTION ON THE PROTECTION OF UNDERWATER CULTURAL HERITAGE

According to the status introduced by the UNCLOS, there is an important *vacuum legis* as for the monuments of the seabed of either the continental shelf or the EEZ, namely before the Area of the international seabed, for which is competent a separate legal person, the International Seabed Authority. The trade of cultural objects frequently comes from unauthorized underwater activities (Moustaira, 2012). Underwater cultural heritage is occasionally understood as goods with a purely economic value (Nie, 2015). For example, in 1999, 350.000 Chinese ceramic artifacts were recovered from the sea and put up for auction in Germany, ignoring the historical and archaeological value for these pieces. For this reason, UNESCO took the initiative to create the aforementioned Convention on the protection of the underwater cultural heritage. This 2001 Convention was accepted by 87 States whilst 4 other States voted against and there were 15 abstentions (among them, Greece). The Convention previews methods of cooperation without taking an approach to the problem of the separate jurisdiction of the coastal State (Roukounas, 2006). It constructs a comprehensive legal regime concerning jurisdiction and regulation of underwater cultural heritage in the territorial waters, contiguous zone, EEZ and the Area as well as underwater cultural heritage on the continental shelf. The same category of objects located in territorial waters is under the exclusive jurisdiction of coastal States, however they are required to comply with all Rules contained in the Annex when authorizing and conducting activities directed at these objects (Nie, 2015). The Annex "Rules concerning activities directed at underwater cultural heritage" constitutes a set of 36 articles, which is highly useful and widely recognized and applied by underwater archaeologists (UNESCO). The Rules contain regulations as to:

- How a project is to be designed;
- The competence and the qualifications required for persons undertaking interventions;
- Planning the funding of excavation projects;
- Documentation of archaeological excavations under water; and
- Methodologies on conservation and site management.

The main rule of the Convention consists in the obligation of States Parties to preserve underwater cultural heritage and take action according to their capabilities whilst the Convention encourages both scientific research and public access. Another rule consists in ban of commercial exploitation for trade or speculation. This norm, which is in conformity with the general principles for the land monuments in national legal orders (Maniatis, 2010), should not be conceived as preventing archaeological research or tourist access.

From 2/1/2009, date of activation of the Convention, the States Parties may take advantage of the

model of international cooperation for the archaeological sites laying beyond the territorial sea, mainly in the continental shelf. This is the case for the “archaeological countries”, such as Italy, which ratified the Convention on 8/1/2010, and Egypt, which made the same thing in delay, on 30/08/2017. Just the opposite, Greece does not seem to have the political volunteer to become a State Party of the Convention whilst it has neither contiguous zone nor archaeological zone. However, it is to underline that the Convention has been ratified by a very limited number of countries, to date, and the doctrine tends to consider both the contiguous zone and the archaeological one as rather anachronistic.

As far as Italy is concerned, article 94 of the 2004 Code on cultural goods and on landscape refers to a zone of the sea, which has some common points with the doctrinal approach to the archaeological zone. This article has been characterized as an anticipation of the law ratifying the UNESCO Convention, by imposing the application of the aforementioned Annex for all historical and archaeological objects found in the seabed backdrops extended till the 12th nautical mile from the external limit of the territorial sea (Ferretti, 2016). It is quite impressive that the Italian legislator avoided not only the term “archaeological zone” but also the official one “contiguous zone” (for this already consecrated zone). So, it is obvious that the vagueness and the embarrassment in the matter of the archaeological zone prevail, in both the international level and the national one. Italy proceeded to a unilateral and spontaneous motion to apply the normativity of the Annex, many years before the Convention came into force. However, this is not a unique case, as various States adopted the odd practice of the spontaneous application of this Convention, prior to its ratification!

CONCLUSION

The paper hypothesis on the anthropocentric modernization implicated by the archaeological zone has been fully confirmed. The innovation is valid against the customary version of the Law of the Sea, relevant to classical interests of the coastal States (national defense, mercantile navigation, fishery...), and its codified version, regarding financial interests of the States along with private companies (fishery, exploitation of the natural resources of the seabed...).

So, if Italy has symbolized the beginning of the current period of the branch of the Law of the Sea worldwide, it also may be regarded as the emblematic country for the introduction of normativity on the protection of underwater cultural heritage beyond the Area, as follows:

- the UNCLOS on the “anonymous” archaeological zone,
- the UNESCO Convention on the protection of underwater cultural heritage, which constitutes essentially the complementary normativity on the matter, not to speak about the unilateral, spontaneous application of the Annex of the Convention before the Convention came into force!

Although experts, such as the Italian Professor of International Law Tullio Scovazzi, have characterized the current status on monuments at the seabed between territorial waters and the Area as “*a contradictory and counterproductive regime*”, another approach is more optimistic (Roukounas, 2006).

Anyway, we consider that each coastal State should adopt a systematic policy on the protection of underwater monuments beyond its territory. This is particularly the case of Greece, which has adopted a paradoxically minimalist approach to the Law of the Sea, far beyond its potential zones of sovereign rights or operational ones. The Greek “negativism” is exemplified by the lack in contiguous zone (and its rather autonomous version of the archaeological zone), the EEZ etc.

Last but not least, we believe that the “archaeological zone” should be promoted to a clearly consecrated autonomous zone of the Law of the Sea, namely independent to the contiguous zone. This development could not only upgrade the protection of monuments but also offer clearer information on the matter, which has been to date insufficient.

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THE EXCLUSIVE ECONOMIC ZONE (EEZ) IN THE CONSTITUTION FOR THE OCEANS

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ABSTRACT

The United Nations Convention on the Law of the Sea, called by the doctrine “Constitution for the Oceans”, has resulted from an important codification of this branch. This paper focuses on the novelty of the Law of the Sea, which consists in the Economic Exclusive Zone, widely known as EEZ. Coastal States, such as Peru and Iceland, attempted to create some exclusive fisheries zones against foreign fishing fleets. Not only did they manage to promote their fishing interests but later they contributed to the adoption of a new zone at the existent High Seas, the EEZ, in the Constitution for the Oceans. This zone is not only beneficial for fishery but also for the exploitation of the natural resources of the seabed and its subsoil, following the model of the zone of continental shelf, already introduced in the 1958 Geneva convention. Besides, African and developing countries managed the adoption of an extended right to enforcement of law and regulations of the coastal State in the EEZ, as far as fishery and pollution are concerned. It results that the EEZ, like the antecedent of the exclusive fisheries zone which has been recognized as an institution of the customary law, constitutes a kind of subversive modernization of the Law of the Sea. Both types of zones could be particularly beneficial to weak countries, such as Iceland and Cyprus.

Keywords: Constitution for the Oceans; Continental Shelf; Exclusive Economic Zone (EEZ); Exclusive Fisheries Zone / Exclusive Fishery Zone (EFZ); Fisheries Protection Zone (FPZ); Law of the Sea; Territorial Sea

INTRODUCTION

The modern International Law of the Sea emerged as customary law in the 17th century. This development is attributed to the fact that maritime States expressed their interest to govern in the sea place. One of them was Venice, which had already managed to become the biggest place of commerce of the Christian West (Vergé – Franceschi).

After almost four centuries of customary nature, this branch has an impressive development, the last four decades, within the second phase of its codification, namely after the set of the four Geneva Conventions of 1958. This phase has to do with the United Nations Convention on the Law of the Sea (UNCLOS), concluded in 1982, which constitutes the first attempt to codify the Law of the Sea, in a single text. Therefore, this text is comparable to the formal Constitutions of the sovereign States, that is why the doctrine has called it “Constitution for the Oceans” (De Pooter). As modified, it includes all institutions of this branch, with the unique exception of a relatively new zone, of customary origin, the Exclusive Fisheries Zone or Exclusive Fishery Zone (EFZ). This zone secured increasingly wider support after the 1945 Truman Coastal Fisheries Proclamation (Molenaar, 2015). Well before the entry into force of the UNCLOS – probably by the early 1970s – a coastal State’s entitlement to sovereign rights and jurisdiction for fisheries purposes within a 200-nautical mile (nm) EFZ had crystallized into customary international law. The current paper focuses on a zone being newer than the EFZ and having the same age with the archaeological zone, previewed for the first time in the Constitution for the Oceans. It is about the Economic Exclusive Zone, widely known as EEZ, which constitutes the trend of current diplomacy. Anyway, both zones relevant to fishery could be considered as comparable to the aforementioned version of the contiguous zone. Indeed, the fishing sector of the economy and antiquities have become the major legal goods implicating the recent modernization of the Law of the Sea. However, the EEZ is almost exclusively an Exclusive Fishery Zone, namely an EFZ number II?

We suppose that the EEZ constitutes a subversive kind of modernization of the Law of the Sea.

ZONES PRIOR AND RELATED TO THE EEZ

The archaeological zone is a rather insufficient zone to prevent antiquities looting in the international seabed, off the Area (Nie, 2015), which informally may constitute an extended underwater museum (Maniatis, 2010). It has as its antecedent the contiguous zone and as a complementary set of rules those of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. For instance, article 94 of the 2004 Italian Code on cultural goods and landscape has been characterized as an anticipation of the law ratifying the UNESCO Convention, by imposing the application of the Annex of the Convention, entitled “Rules concerning activities directed at underwater cultural heritage”, for all historical and archaeological objects found in the seabed backdrops extended till the 12th nautical mile from the external limit of the territorial sea (Ferretti, 2016).

As far as the EEZ is concerned, it has various historical antecedents, like the territorial sea, which was beneficial to the coastal States not only for the primary scope of national defense but also for exclusive

exploitation of the fishing stocks. The idea of the EEZ emerges in the late 1940s, coming from Peru, which nowadays constitutes the biggest fishery of the world (Cury), Chile and Ecuador, countries that wanted to be endowed with the privilege to exploit the natural resources at a minimal distance of 200 nautical miles (370,4 km) from their coasts, as it results from the 1952 Santiago Declaration (De Pooter). Various factors are proved to be useful to interpret this limit, which was not chosen by chance. The distance on the matter makes it possible to include the Humboldt maritime current, which is born in the Antarctic and rises along the Pacific coast of South America. In this cold current (being rich in plankton), whose waters are full of fish, South American fishermen have exercised their activity since centuries and the authors of the Santiago Declaration want to preserve this activity. In the 1970s, the new States of Africa and Asia make use of this revindication for their own interests, to ensure the control of their fishing resources against the fishing capabilities of the developed countries. Finally, the practice was developed to such a pitch that it was consecrated in the UNCLOS.

It results that the de facto initial consecration of an informal EEZ makes part of the final phase of the customary status of the Law of the Sea, namely it is prior to the Geneva codification. After the Geneva Convention on the continental shelf, which is regarded as the great success among the 4 Conventions of that first attempt of codification of the Law of the Sea, some States had a disadvantage against the others and attempted to ensure other resources. It was about the natural resources of the sea place, over the seabed. Anyway, due to the advent of technology, frequently some fishing fleets are installed out of the territorial waters, damage for a long period of time (5-10 years) the fry and make poorer the fishery fields, even within the territorial sea of a coastal State (Roukounas, 2006).

It is also to signalize that Iceland contributed significantly to the creation of the (informal) EEZ, with its initiatives similar to those of the countries of Latin America, although it wanted to exploit a 50-nautical mile exclusive fisheries zone. Besides the so-called "cod wars", it is also notable that even after them, the disputes of Iceland against the UK were not fully inexistent. For instance, in 1983, this State made use of its Coastguard to prevent the UK fishing fleet from fishing in the area in question. However, the UK, which had won a difficult war against Argentina the year before, could not tolerate such a development. So, the Margaret Hilda Thatcher's government ordered the British navy to accompany the private boats to ensure these activities. As Iceland is the unique country of the political part of the NATO which is deprived of armed forces, it had no alternative but to make use of the Coastguard. When the Coastguard forces announced that the entry in the disputed area was prohibited, the British responded with warning shots and so the Icelanders retreated. However, this small nation, in terms of number of citizens, managed to protect its own interests through diplomacy, thanks to its bonds with the USA. It is quite impressive that a weak fishing nation (for instance,

deprived of military forces) could proceed to unilateral measures, out of the Law of the Sea, to protect its own economic interests. Therefore, it contributed to the consecration not only of the institution of the EEZ but also to the recognition of the EFZ of some coastal States. For instance, Iceland's EFZ has an area of 760.000 square km, seven times the area of Iceland itself. This is crucial for the national economy of this State, given that some of the largest fish stocks in the North Atlantic are found in Icelandic waters, including the cod stock, which is the most important stock for the country.

In a similar way, Spain has recently acquired a “fishery protection zone” in the Mediterranean, in which Malta (25 nautical miles) and Algeria (52 nautical miles) have already adopted such a zone (Alexopoulos and Fournaraki, 2015). The Arbitrage Tribunal in the case Canada – France, on the elaboration of fishes in the St Laurent Bay (1986), admitted the existence of the fishery zone and characterized it as equivalent to the EEZ in the matters of fishing resources. Besides, the International Court of Justice in the case of the delineation of the sea area between Greenland and the Jan Mayen island (1993) recognized the 200 -nautical mile fishery zone as an institution of the customary law, which has been formed and is valid independently to the UNCLOS. In a similar way, the doctrine signalizes that nothing in general international law suggests that the new customary right to an EEZ affected the pre-existing (customary) right to an EFZ (Molenaar, 2015). In line with the principle *in maiore stat minus* (who can do more can also do less), some coastal States continue to claim only EFZs. Others first established an EFZ and later also established an EEZ for the same waters , without revoking the EFZ (e.g. the Netherlands). While this approach can be preferred for domestic legislative reasons, from the perspective of international law such a coastal State is best categorized as having established an EEZ, as this is the more comprehensive zone. So, nowadays States have been endowed with a pluralism of zones relevant to fishery, off their territorial waters. They may decide to establish an EEZ adjacent to part of their territory and an EFZ to another part. For instance, Norway has introduced an Economic Zone (a de facto EEZ) off its mainland, a Fishery Zone (a de facto EFZ) off Jan Mayen, a Fisheries Protection Zone (FPZ) off Svalbard, but no 200 nm maritime zones at all off its (claimed) territories in the Southern Ocean and Antarctica.

The doctrine has concluded that the FPZ established by Norway off Svalbard is a new maritime zone, which relies on the customary right to an EFZ but also takes account of the diverging views among States on the spatial scope of the Spitsbergen Treaty ((Molenaar, 2015). While several other coastal States have also established FPZs, their enactments show that these zones really consist in de facto EFZs. For instance, this is the case of Spain, which adopted Royal Decree No. 1315/1997, of 1 August 1997 ‘establishing a Fisheries Protection Zone in the Mediterranean Sea’ whilst the same

country established an EEZ off its coast in the Mediterranean in 2013, but without formally revoking its FPZ.

According to an approach, the “fishery zones”, “fisheries protection zones”, “ecological protection zones” and ecological and fishery protection zones” have been claimed by a number of Mediterranean coastal States and can therefore in terms of UNCLOS be understood to amount to a sub-category of EEZ (MRAG et al., 2013). Because such zones derive from the rights conferred on coastal States to claim an EEZ, they are described as “derivative zones”.

THE RIGHTS OF THE COASTAL STATE TO THE EEZ

According to article 55 of the UNCLOS, “*The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention*”. The doctrine is not unanimous on the question of the legal nature of the EEZ, particularly as for its status as a thoroughly new zone, independent to the High Seas.

The coastal State has the following two categories of rights in the EEZ, according to article 56 of the UNCLOS:

- (a) “sovereign rights”, for exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil. These rights “emerging” from the older, similar zone of the continental shelf unify the regime of the seabed and its subsoil with the regime of the superjacent waters in a 188-nautical mile breadth beyond the classical zone of the territorial waters (Roukounas, 2006). “Sovereign rights” are also previewed by the UNCLOS with regards to other activities for the economic exploitation and exploration of the EEZ, such as the production of energy from the water, currents and winds;
- (b) “jurisdiction” as provided for in the relevant provisions of this Convention regarding the establishment and use of artificial islands, installations and structures, the marine scientific research and the protection and preservation of the sea environment from the pollution.

The doctrine assumes that it is too early to distinguish the difference between sovereign rights and jurisdiction (Roukounas, 2006). The key point is that the Convention allows a very limited merge for other countries to fish or in general to exploit the zone without the explicit consensus of the coastal State. Furthermore, the jurisdiction of this State in the matter of the confrontation of the pollution becomes more and more extended.

THE RIGHT TO INTERVENTION OF THE COASTAL STATE IN THE EEZ

Before the UNCLOS, the intervention of foreign ships in the High Seas was merely the exception, which was introduced through a bilateral or regional convention. In virtue of this text, there is a significant enforcement of the right to such an intervention in the specific zone of EEZ (former zone of the High Seas) for illegal fishery and pollution, whilst the consensus of the flag State is not necessary. This regime has been regarded as a success of the African States and generally of the developing countries (Roukounas 2006). According to article 73 of the UNCLOS,

“1. The coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.

2. Arrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security.

3. Coastal State penalties for violations of fisheries laws and regulations in the exclusive economic zone may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other form of corporal punishment.

4. In cases of arrest or detention of foreign vessels the coastal State shall promptly notify the flag State, through appropriate channels, of the action taken and of any penalties subsequently imposed”.

Lastly, it is important to point out that in the comparable case of the EEZ of the Republic of Cyprus in 2018, the Turkish war navy illegally impeded the preparation of exploitation of the seabed by an Italian company. Cyprus had been prudent enough to make business not only with Italian partners but also with the USA and French ones, so Turkey did not manage to impose the “law of the mighty” against the American company. The adventures of Cyprus highlight a very important dimension of the EEZ, beyond its obvious usefulness for fishery and other aspects of economy: the geopolitical interests of the coastal State, let alone in the “open market” of the global economy.

CONCLUSION

The paper hypothesis on the non-conventional modernization of the Law of the Sea has been fully confirmed. Indeed, the EEZ constitutes a quite original and subversive modernization of the Law of the Sea, let alone the fact that it shares a common antecedent with the EFZ. As far as its “prehistory” is concerned, the EFZ has been gained de facto, by weak countries against extremely powerful ones. This is the case of Iceland mainly against the UK, let alone the fact that the “fishery protection zone” later gained jurisdictional recognition. The third United Nations Conference on the Law of the Sea (UNCLOS III) formally commenced in 1973 among widespread but diverging State practice on claims

to breadths of territorial seas and EEZs (Molenaar, 2015). An early proposal at UNCLOS III for a 200 nm EEZ soon made its way into State practice and at least its general aspects had already become part of customary international law before the end of that Conference.

Besides, it is to point out that weak countries, such as Cyprus, have recently begun to enact a significant role in the international scene through the acquisition and exploitation of their EEZ. Both types of the aforementioned zones could be particularly beneficial to weak countries, such as Iceland and Cyprus.

The Law of the Sea is an interesting and particularly dynamic branch of law, in which weak countries and customary rules can beat superpowers and positive law, respectively...

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THE AREA OF THE INTERNATIONAL SEABED IN THE CONSTITUTION FOR THE OCEANS

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ABSTRACT

This paper focuses on the novelty of the Law of the Sea, which is the “Area”. It is about a new underwater zone, beyond the continental shelf, institutionalized by the UNCLOS, which has been called by the doctrine “Constitution for the Oceans”. The Area constitutes common heritage of Mankind and is administrated by the ad hoc legal person “International Seabed Authority”. In recent years, a new trend occurred in relation to the way new applicants for plans of exploitation work exercise their option, relating to the provision of reserved parts of the Area. An alternative to the reserved areas regime was provided, allowing contractors to elect either a reserved area or to offer an equity interest in a future joint venture with the Enterprise, which is the competent company of the Authority. The Area remains problematic, given that the principle of the common heritage of mankind is vague and has been criticized by the doctrine as an announcement empty of content. There is no information available on the eventual risks and the management of the underwater cultural heritage of this zone, a case reminding of the archaeological zone.

Keywords: Archaeological zone; Area; Constitution for the Oceans; European Union; Enterprise; International Seabed; International Seabed Authority; Enterprise; Law of the Sea, 3G fundamental rights

INTRODUCTION

The modern international law of the sea emerged as a customary law in the 17th century. This development is attributed to the fact that maritime States expressed their interest to govern in the sea place. One of them was Venice, which had already managed to become the biggest place of commerce of the Christian West (Vergé – Franceschi). The first attempt to codify this branch took place through the four Geneva Conventions, signed in 1958.

This second attempt resulted in the United Nations Convention on the Law of the Sea (UNCLOS), concluded in 1982, which constitutes the first single code on the matter. Therefore, it is comparable to the formal Constitutions of the sovereign States, that is why the doctrine has called it “Constitution for the Oceans” (De Pooter). This text, as modified, includes all institutions of this branch, with the unique

exception of a relatively new zone, of customary origin, the Exclusive Fisheries Zone or Exclusive Fishery Zone (EFZ). This zone secured increasingly wider support after the 1945 Truman Coastal Fisheries Proclamation (Molenaar, 2015). Well before the entry into force of the UNCLOS – probably by the early 1970s – a coastal State's entitlement to sovereign rights and jurisdiction for fisheries purposes within a 200-nautical mile (nm) EFZ had crystallized into customary international law.

The current paper focuses on a new zone, previewed in the Constitution for the Oceans. It is about the Area (of the International Seabed), being relevant inter alia to the abyss, which constitutes a key to the future mainly thanks to the metal deposits included (Duperron and Gaill).

We suppose that the Area exemplifies the movement of 3G fundamental rights, exemplified by the rights to the environment and to the world cultural heritage.

ZONES PRIOR AND RELATED TO THE AREA

The successful sample of the Geneva Conventions consisted in the continental shelf, which was consecrated as a new zone for research and exploitation of the national resources, such as oil. That Convention did not define the external limit of the zone as a something (definitely) fixed and so some countries of the Third World felt that some coastal countries could proceed to ocean sharing (Roukounas, 2006).

Article 1 of the 1958 Geneva Convention on the High Seas defined the high seas as “all parts of the sea that are not included in the territorial sea or in the internal waters of a State”. The prospect of exploitation of non-living resources of the deep seabed beyond continental shelves then triggered a debate on the desirability of a distinct regime for the deep seabed. Following the famous Pardo speech in 1967, the United Nations General Assembly took a number of steps which eventually established ‘the Area’ as a distinct maritime zone from the high seas at least as from 1970, through the Resolution 2749/XXV, of 17 December 1970 (Molenaar, 2015). On proposal of Malta, the General Assembly in that Resolution declared that the seabed which is found beyond the State jurisdiction constitutes “common *heritage of Mankind*”. The novelty was obvious, given that for the first time in history a part of the international seabed is not submit to the diachronic regime of freedom of the High Seas whilst the waters continue to exemplify the zone of the High Seas. The central idea which prevailed in the negotiations for the adoption of the UNCLOS was that in the Area a delivery of the wealth would be realized among all States, in response to their needs. This democratic concept was inspired by the notion of solidarity in the international relations and by the legal institutionalization of mechanisms of joint action and fair redistribution of the Earth wealth.

In a parallel way, in 1980 the two “archaeological countries”, Greece and Italy, along with Capo Verde, Malta (which had the initiative for the institutionalization of the Area, as already signalized),

Portugal, Tunisia and Yugoslavia, proposed the creation of a cultural heritage zone that could not extend beyond 200 nautical miles from the baselines, from which the breadth of the territorial sea is measured. However, this maximalist zone, which would correspond to the zone of the continental shelf (at least as this zone was defined in the UNCLOS), was turned down, due to the reactions of other countries that are not classified among the “archeological countries”, such as the USA, the UK and the Netherlands. The initial concept consisted in the extension of the jurisdiction of the coastal State on the archaeological objects that are found in the continental shelf or in the novelty introduced by the Constitution for the Oceans, the Exclusive Economic Zone (EEZ) (Alexopoulos and Fournaraki, 2015). Finally, a compromise occurred, and the contiguous zone acquired a new version, an “anonymous” specific version of the contiguous zone. It is about the archaeological zone, which is rather insufficient to prevent antiquities looting in the international seabed, off the Area (Nie, 2015). Given that the contiguous zone (with or without the specific status of the archaeological zone) cannot extend beyond the 24 nautical miles from the baselines, from which the breadth of the territorial sea is measured, it results that relatively near the shores there may be an extended underwater informal archaeological museum, exempted from any national jurisdiction (Maniatis, 2010).

From 2/1/2009, date of activation of the UNESCO Convention on the Protection of Underwater Cultural Heritage, the States Parties may take advantage of the model of international cooperation for the archaeological sites laying beyond the territorial sea, mainly in the continental shelf. This is the case for the “archaeological countries”, such as Italy, which ratified the Convention on 8/1/2010, and Egypt, which made the same thing in delay, on 30/08/2017. However, the Convention has been ratified by a very limited number of countries, to date, and the doctrine tends to consider both the contiguous zone and the archaeological one as rather anachronistic. As far as Italy is concerned, article 94 of the 2004 Code on cultural goods and on landscape refers to a zone of the sea, which has some common points with the doctrinal approach to the archaeological zone. This article has been characterized as an anticipation of the law ratifying the UNESCO Convention, by imposing the application of the Annex of the Convention for all historical and archaeological objects found in the seabed backdrops extended till the 12th nautical mile from the external limit of the territorial sea (Ferretti, 2016). It is quite impressive that the Italian legislator avoided not only the term “archaeological zone” but also the official one “contiguous zone” (for this already consecrated zone). So, it is obvious that the vagueness and the embarrassment in the matter of the archaeological zone prevail, in both the international level and the national one. Italy proceeded to a unilateral and spontaneous motion to apply the normativity of the Annex, many years before the Convention came into force. However, this is not a unique case, as various States adopted the odd practice of the spontaneous application of this Convention, prior to its ratification!

In the initial version of the UNCLOS, an area of the seabed beyond the EEZ, was called Area and characterized as “common heritage of Mankind”. Nevertheless, when the Convention was concluded in 1982, some industrial States shared the point of view that the global approach taken to the question of the international seabed was marked by features of transnational monopoly interventionism in contradiction to the principles of free competition. Besides, they supported the opinion that the organizational structure previewed by the Convention gave to the majority such rights that there was no guarantee for the investing industrial States. With the leading intervention of the USA, an attempt was made to modify the relevant part XI of the Convention, which is titled “The Area”. The amendment of the Convention was achieved through the 1994 New York Agreement and formally is a complement of the initial Convention. However, even with the new regulations, the announcement (which has been to date empty of content, according to the criticism of the doctrine) that the Area constitutes common heritage of Mankind (in virtue of article 136 of the UNCLOS) was not erased (Roukounas, 2006). In a similar way, the prevision on the fair distribution of benefices coming from the exploitation, to all the countries (particularly to the developing ones), independently to their geographical position remains valid.

It is also to add that some of the industrial States that were endowed with the suitable technical infrastructure and did not sign the UNCLOS in 1982, such as the USA, the Soviet Union, France, the UK, Japan, India and Italy, proceeded to two ambivalent acts. On the one hand, they adopted national law on the research and the exploitation of the seabed in concrete points of the ocean seabed, in obvious contradiction to the previsions of the initial version of the UNCLOS. On the other hand, they created consortiums of multinational companies that inaugurated the research in sections of the seabed of the Area. With the Resolution II, which was incorporated to UNCLOS, it is previewed that the States or companies that have proceeded to preliminary activities in the Area, would have the right to an authorization from the competent organ (which then was the Preparatory Committee). Therefore, seven “pioneer investors” (USA, India, France, Japan, Soviet Union, China, South Korea) and relevant organizations were listed.

THE APPLICATION OF THE UNCLOS ON THE AREA

For the research and the exploitation of the Area has been activated the International Seabed Authority, being a legal person under the international law. There is also the Enterprise, a separate legal person regulated by article 170 of the UNCLOS, which carries out activities in the Area directly, pursuant to article 153, par. 2(a) of the Convention, as well as the transporting, processing and marketing of minerals recovered from the Area. According to Article 153 par. 2,

“Activities in the Area shall be carried out as prescribed in paragraph 3:

(a) by the Enterprise, and

(b) in association with the Authority by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, when sponsored by such States, or any group of the foregoing which meets the requirements provided in this Part and in Annex III" ...

After the 1994 Agreement, the companies that were already in action in the Area have been incorporated to the "Parallel System", namely they act with the approval of the International Seabed Authority, till the activation of the new system. However, it is previewed that the new system of the Area would be operational for the first time not earlier than 2015. Even then, it would be assessed whether the research and the exploitation of the mineral wealth contained in the ocean floor are value for money or not (Roukounas, 2006).

In recent years, a new trend occurs in relation to the way new applicants for plans of exploitation work exercise their option relating to the provision of reserved areas in the Area (International Seabed Authority Legal and Technical Commission, 2016). An alternative to the reserved areas regime was provided, allowing contractors to elect either a reserved area or to offer an equity interest in a future joint venture with the Enterprise. Since then, both Brazil and Japan (in relation to crusts), and China, Germany, India and the Russian Federation (in relation to sulphides) have all opted to offer an equity interest in a joint venture arrangement with the Enterprise in lieu of providing a reserved area. Increased adoption of the joint venture option could result in a considerable decrease in the amount of reserved areas available for future generations, thus having direct implications on the parallel system. Alternatively, the joint venture option raises real questions relating to the modalities and operationalization of the Enterprise. Another legitimate but nevertheless new way of doing business that has recently been observed consists in the practice of selective use of reserved areas. For instance, the recent application by China Minmetals Corporation (sponsored by China) was divided into 8 blocks, selected from five different reserved areas.

Besides, the UNCLOS has a quite vague normativity on archaeological and historical objects, found in the Area and considers them as common heritage of mankind. It is also to add that there is no available information on this crucial issue. For instance in the 2017 final report on the periodic review of the International Seabed Authority pursuant to article 154 of the United Nations Convention on the Law of the Sea, there is no recommendation on the underwater cultural heritage whilst there is an overdose on the exploitation of natural resources of the Area (International Seabed Authority Assembly, 2017).

Lastly, the European Union (EU), which is a party of the Constitution for the Oceans, has recently decided to support the Area, although it does not make an explicit use of this term. For the next long-

term EU budget 2021-2027, the Commission proposed in June 2018 6.14 billion euros under a simpler, more flexible fund for European fisheries and the maritime economy (European Commission, 2018). For the first time, it will contribute to strengthening international ocean governance for safer, cleaner, more secure, and sustainably managed seas and oceans. The maritime fund will enable investment in new maritime markets, technologies and services, such as ocean energy and marine biotechnology. In the context of the United Nations' 2030 Agenda for Sustainable Development, the EU has also committed at international level to make seas and oceans safer, more secure, cleaner and more sustainably managed. The new European Maritime and Fisheries Fund will support these commitments for better international governance.

CONCLUSION

The paper hypothesis has been fully confirmed as the Area is an "invention" of the era of the so-called solidarity rights or 3G rights, with the emblematic mobility of Malta whilst Italy has enacted the most important role in the matter of underwater cultural heritage, particularly as far as monuments found in the continental shelf are concerned. Fundamental rights of the third generation consist in legal guarantees in favour of people, or more generally, in favour of the Mankind itself. For instance, there is a special care on the re-distribution of common wealth whilst a specialized legal person, the International Seabed Authority, in which participate ipso facto all States Parties of the UNCLOS, takes care of the archaeological and historical objects of the Area for the interest of mankind. This legal person representing humankind is endowed with an Enterprise and controls the research and exploitation of mineral resources, which can only serve peaceful scopes. However, the legal and operational experiment of the Area remains problematic for various reasons. For instance, the notion of the Area as common heritage of mankind is rather vague and has been criticized by the doctrine as an announcement empty of content. There is no available information on the status and the eventual risks of the cultural heritage found in the Area!

The Law of the Sea has been recently enriched by underwater novelties, such as the normativity on the archaeological zone, the Exclusive Economic Zone and the Area. However, at least as far as the archaeological zone and the Area are concerned, they are marked by crucial problems that compromise the prestige of this branch of law.

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THEORETICAL AND PRACTICAL ASPECTS OF THE USE OF ENERGY SERVICE CONTRACTS IN THE WORLD

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ABSTRACT

The article describes the terms and definitions of energy service, nature and elements of energy service contracts which are mentioned in the science literature. The article characterizes the usage of energy service contracts of different countries, features and problems of energy service contracting development in Russia.

The leaders in a global energy service are Germany, France, Great Britain, Austria, USA, China and other. Energy service contracts have become a highly effective method of energy saving in developed countries. As a rule, they have a highly developed body of law, strong state support and special programs for financing this activity. State energy policy played an important role in stimulating ESCO activity in various markets. The volume of a global energy service market is more than 24 billion dollars (2015): 55% of China; 26% of USA; 11% of the European Union countries. More than 2.3 thousand of energy service companies are functioning in China.

The article points that energy service has become a new and complex business in Russia. Russian's Association of Energy Service Companies "RAESCO" gives the following figures: 96 companies are registered 702 contracts were performed in 2016. The total volume of the market is 7.4 billion rubles (0.13 billion dollars). Most ESCO contracts in Russia are for 5 years, and they generally are small. ESCOs also are concerned about costly and risky tender procedures. The most complex element in Russia is a development of organizational and legal instruments to attract investments in energy service.

Keywords: Energy, energy service, energy service contract, energy efficiency

INTRODUCTION

Energy efficiency can be currently considered as a key indicator of the achievement of a sustainable development of the country. Energy efficiency can be both at the level of energy production and at the level of their processing and usage, including energy consumption. At the last stage one of the modern ways of achieving energy efficiency and as a result its economy are energy service contracts (ESC)

provided by energy service companies (ESCO). For the European countries with a low level of their own energy resources, the energy saving is a priority.

Despite the fact that this article will be devoted to the issue of energy service development, we are going to give an overall situation on the global energy sector, although it is quite evident that energy resources of the planet are limited. And these natural resources are unevenly distributed among the countries and their production is carried out under different climatic conditions of certain countries.

For example, Global Energy Architecture Performance Index 2016 (EAPI) measures almost 20 indicators of the 126 countries and analyzes three main spheres which are directly influenced by energy: economic development, environmental situation, freedom of access and energy security (Global Energy Architecture., 2016). The leaders of the 2016 ranking are Switzerland, Norway, Sweden, France, Denmark, Austria and Spain. USA is ranked 48, Japan - 50, Russia - 52. China - 94. Countries with just few own resources will need to import large volumes of them and they are especially interested in saving resources for the electricity production (which is essential for a modern socio-economic development). As the experience shows, highly developed countries are more than others interested in developing energy saving technologies and in using alternative energy (such as wind, solar, etc.). And it is not just for the needs of their economies. It is also about political factors (including energy security, reducing energy resources import dependence).

There are countries with significant number of resources (China is the biggest country in terms of population) but they also have to save energy due to a low energy resource indicator per capita (even compared to the EU countries) (Rodionova et al., 2017). Also there is a significant influence on global market by Gulf countries that operate with powerful financial resource SWFs - sovereign wealth funds (Rios-Morales et al., 2011). We consider differently about the issue on alternative energy development in Russia, but we also take into the account the importance of global trends for increasing energy efficiency production and consumption, as well as resources. Energy efficiency is a key issue for Russia. The purpose of the article is to analyze the practice of applying energy service contracts in different countries of the world, and to characterize the features and problems of development of energy service services in Russia.

FEATURES OF DEVELOPMENT OF ENERGY-SAVING TECHNOLOGIES AND ENERGY SERVICE CONTRACTS

The energy saving and energy efficiency programs are being created and improved in countries with the highest energy consumption (the US, China and the EU countries). In the US, for example, there is a 2005 law "ENERGY POLICY ACT OF 2005" (Energy policy..., 2005). In February 2009, the law "The American Recovery and Reinvestment Act of 2009" was adopted to support energy conservation

policy (The American..., 2009). In 2012, the certification program was launched ("Superior Energy Performance") (Superior..., 2012). In China, in 2007, the State Council of China approved the "White Paper" on energy (China's National..., 2006). In 2008, China adopted a number of documents: Energy Conservation Law; Public Sector Energy Saving Regulation; In-depth Development of Energy Saving Action to All Chinese People; Civil Energy Bill. Similar laws and programs exist in many countries.

We present data on the costs of energy efficiency measures per capita in different countries (2016): Germany (\$318.5), Italy (\$81.6), France (\$42.1), China (\$29.5), Canada (\$24.5), USA (\$19.0). For comparisons: Brazil (\$3.3), Russia (\$0.2), India (\$0.1) (The 2016 ACEEE...).

We can highlight three groups of instruments of energy efficiency development in a country (and a sector): financial and economic, institutional, administrative and legislative. Institutional instruments include: energy service contracts, energy audits, public-private partnership, energy saving and energy efficiency education, propaganda of energy efficiency behavior.

The importance of energy service must be considered not only in public sector but also from the position of energy consumers. There are many researches dedicated on communication between suppliers and consumers in terms of ecological aspect (Peattie Ken *et al.*, 2009).

Further we will talk about energy service and energy service contracts. We will pay attention to the terms "energy service" and "energy service contract". European Energy Efficiency Platform gives the following definition: Energy Performance Contracting (EPC) is a "form of 'creative financing' for capital improvement which allows funding energy upgrades from cost reductions" (European Energy...). Under an EPC an external organization (energy service company - ESCO) implements a project of delivering energy efficiency (or a renewable energy) and uses the stream of income from the cost savings or produces renewal energy for repaying the costs of the project, including investment ones. In fact, the ESCO will not receive its payment unless a project provides energy saving as expected.

This approach is based on the transfer of technical risks from a client to the ESCO based on performance guarantees presented by the company. The remuneration in EPC is based on the demonstrated result. A measure of effectiveness is a level of energy saving and energy service by introducing new technologies.

So, we got an idea of the issue of our study. Energy Performance Contract (EPC) - is a tool for improving infrastructure for facilities that lack engineering skills, manpower or management skills, capital funding, understanding of risk or information on technologies. European Energy Efficiency Platform covers a very important moment - payment terms of the contract.

Here is another definition given by the US Environmental Protection Agency. Energy Performance Contract is a turnkey service. It can sometimes be compared to a design-build contract. ESCO

provides its customers with a full range of measures for improving energy efficiency, using renewable energy resources and contributing distributed generation. And it is usually a guarantee that these savings can be spent for financing a full project (U.S. Environmental...).

A typical EPC project is provided by ESCO and includes the following elements:

- A turnkey service. Energy service company provides a full range of services required for designing and implementing a project at the customer facility, from an initial energy audit to a long term monitoring and verification of the project savings (M&V).
- Comprehensive measures. ESCO accommodates a set of measures to meet the needs of a particular facility (energy efficiency, renewable energy sources, distributed generation, water conservation and sustainable materials and operations).
- Project financing. ESCO arranges financing on a long-term basis which is provided by a third financing party. It is usually provided in a form of an operating or a municipal lease.
- Project savings guarantee. ESCO guarantees that all saved funds will be sufficient to cover further project costs for the life of a project.

In other words, the focus is on energy efficiency, possibility to use alternative energy sources, and guarantees of savings produced by the project.

Note that compared to the European Energy Efficiency Platform definition, the definition given by the US Environmental Protection taking into account the geographical features of the US regions, there are doubts that such technologies can be used everywhere. At the same time, the European agency warns about the risks of failing to achieve the desired economy.

The European Commission Joint Research Center in its report "ESCO in Europe" gives, in our opinion, another interesting definition. The payment for the services is calculated (wholly or partially) on the achievement of desired energy efficiency indicators and on the conformity with the agreed criteria of the provided services (The European ESCO., 2008). In other words, the European commission gives a unified definition describing all possible terms of an energy service contract performing.

In Russia an official definition of an energy service contract is given in the Federal Law (FZ from 23.11.2009 № 261-FZ, article 19) "On energy and energy efficiency". «The subject of the energy service contract is a set of measures aimed at energy supply and energy efficiency of the Client's facilities" (Federal Law., 2009). In our view, this definition is not complete and does not describe a whole subject. There is no legal clarity in these types of contracts and no legitimate possibility for an appropriate use of such a contract (Shelokov, 2013).

In our opinion, it explains the reason why only two types of contracts are popular in Russia: 1) a service contract with a fixed payment, 2) an equipment supply contract with payment by installments (payment from the estimated economy). These contracts offer limited options to choose and have a

short contract time, while an average energy service contract time in other countries is 3-5 years, which is quite enough to achieve an efficiency from this activity.

Let us refer to the opinions of experts in the field of energy service. For example, Garbuzova-Schlifter M., Madlener R. presented the first systematic empirical investigation of the Russian Energy service company (ESCO) industry (Garbuzova-Schlifter, Madlener, 2013). The energy performance contracting (EPC) market in Russia is studied by Roshchanka, V., & Evans, M. too. Most ESCO contracts in Russia are for 5 years, and they generally are small (under \$100,000) because of a challenging environment (Roshchanka, Evans, 2016). The article of Bertoldi P. & Boza-Kiss B. presents an overview of the ESCO industry in EU Member States. During XXI Th. the European Union ESCO markets are fast developed. The markets of the neighboring countries – Turkey, Russia, Ukraine, Serbia, also grew, but most of the West Balkans and Moldova remained in an embryonic state. There are many reasons of the ESCO market growth. Among them are some market forces (i.e. increasing energy costs, growing awareness, development of partnerships) as well as policy measures, regulations and financial solutions. (Bertoldi, Boza-Kiss, 2017). The development of energy performance contracting (EPC) market may contribute to realizing the existent potential of energy savings. Nevertheless, according to Capelo, C., Ferreira Dias, J., & Pereira, R. in Portugal, this market is still immature (Capelo, et al., 2018). Over the last 20 years, a fairly large private sector energy-efficiency services industry has developed in North America. The researchers assembled the most comprehensive data set of the U.S. Median simple payback time is seven years for institutional sector projects and three years in the private sector. State energy policy played an important role in stimulating ESCO activity in various markets (Goldman, et al., 2012). According to U.S. ESCO industry the authors of next research found that the U.S. ESCO industry continued to grow at a steady pace in recent years. The U.S. ESCO industry is similar in size to the ESCO industries in Germany, France, and China and the methodology of estimation for U.S. market could be adapted for other countries (Stuart, et al., 2014).

THE PRACTICE OF ENERGY SERVICE CONTRACTS IN THE COUNTRIES

Energy service contracts can be performed either in a private or municipal services. They are small companies. But several markets are dominated by international large companies – for example the EPC market in Germany and Sweden. There are three types of ESC which are applicable globally: a) shared savings, b) guaranteed savings, c) «Chauffage» (energy management). Each of them include other types of agreements with different terms on validity of the contract, level of financial responsibilities of the parties, payment terms (Energy Service., 2017).

Russia uses only two types of contracts (which were mentioned above). These are short term equipment sale and purchase contracts with simple provisions. We will compare characteristics of a long term practice of usage of energy service contracts in the world's countries (Table 1).

Countries	Origin of ESC	Number of ESCOs	ESCO organizations	Main types of contracts	Market volume (per year)
Germany	mid 20-th century	20	Energiecontracting, VFW ESCO Forum VDMA	CEM ESC	4 billion euros
France	mid 20-th century	500 of small ones	FG3E National Energy Agency, ADEME	Chauffage	5 billion euros
Great Britain	1980s	20	Absent, only a program BEEP exists	CEM	400 million euros
Austria	1990s	30		Performance contracts	500 million euros
Italy	1980s	150 of small ones	AGES, ASSOESCO	Chauffage	387 million euros
Sweden	1980s	12-15	The Forum for Energy Service, STEM	Performance contracts	650 million euros
USA	Beginning of 1980s	50	Ameresco, FEMP NAESCO	"Green performance contracts"	6-7 billion dollars

Table 1. *Characteristics of energy service contracts in particular countries. Composed by the authors.*

According to the market volume data there are three obvious leaders: Germany, France and USA. Position of the countries as leaders is justified by the long-term development in this sphere and high interest in improving energy efficiency and energy security. Another reason of big ESCO market volume in these countries is that energy users have great financial opportunities and they search for long term, trustful solutions for energy efficiency investments.

It is important to note that the statistics of an official number of energy service companies is calculated differently in different countries. Note that almost all countries have several consolidated energy service associations that make a legal, financial and commercial functioning of ESC easier. The states of all developed countries support this initiative.

Let us note once again that the main contracts which are used by the leading countries are - performance contracts and energy saving and energy management contracts. The contracts are more frequently performed in a public sector (equipment of schools, universities, kindergartens, hospitals, state agencies, street lighting, etc.). This sector allows to implement the most of the measures and to achieve visible indicators of energy efficiency. In the last few years sectors that were not attractive for ESCOs before, such as residential buildings were targeted by some projects.

FEATURES AND PROBLEMS OF ENERGY SERVICE DEVELOPMENT IN RUSSIA

The volume of a global energy service market is more than 24 billion dollars (2015): 55.4% of China (13.3 billion dollars), 26.3% of USA (6,3 billion dollars), 11% of the European Union countries (2.7 billion dollars). More than 2.3 thousand of energy service companies are functioning in China. According to GIS "Energy efficiency", the energy service market is developing in Russia. 76 energy service companies have been registered in Russia, half of them are located in Moscow (22 companies, 29% from the total), in Saint-Petersburg (7 companies, 9% of the total), and in Tula oblast (4 companies, 5% of the total) (Government information..., 2017). Association of Energy Service Companies "RAESCO" gives the following figures: 96 companies are registered in 36 regions of the country, companies performing projects are in 49 federal states. 702 contracts were performed in 2016. LLC "Active Sotsenergосervice" (Moscow) is a leader of the market and provide services under 276 contracts. The total volume of the market is 7.4 billion rubles. Estimated savings are 8.4 billion rubles. 88% of all contracts are related to municipal and local authorities (Website of the Association., 2017). According to the experts, 139 energy service companies are registered in 33 regions of Russia (half of them are registered in 6 subjects out of 85).

The experts has defined the factors that hinder the development of energy service in Russia. Here they are: lack of information on the part of a potential customer; limited understanding of "energy efficiency" and activity of ESCO by financial structures of Russia; small projects and high costs (it keeps away financial organizations from investments in ESCO activities); client's concerns of a technical and commercial risks; legislative and regulatory frameworks that are incompatible with investments in energy efficiency (for instance, restrictions in loan terms; limited understanding of measurement and verifications to ensure implementation, various administrative barriers). And finally, a lack of motivation as the costs for energy is just a small part of total expenses.

All energy efficiency increase measures take part as an Energy strategy of Russia for the period up to 2030 and a Project "Energy strategy of Russia for the period up to 2030 (Energy strategy..., 2009) and a Project "Energy strategy of Russia for the period up to 2035" (A project., 2017), and also as a Decree of the Government of the Russian Federation of January 8, 2009 No. 1-r "About approval of the main directions of state policy in the field of increase in energy efficiency of power industry on the basis of use of renewable energy resources for the period till 2020)".

However a part of regulations of the Federal Law № 261-FZ "On energy saving and energy efficiency increase and amendments to some legislative acts of the Russian Federation" required for energy service increase has not been developed yet. According to experts, one of the barriers for improving energy efficiency is a lack of a unified body of federal executive power that will be responsible for the

formation and implementation of a state policy and legal regulation in the field of energy saving and energy efficiency (Kolesnikov, 2016).

CONCLUSION

Global experience shows that energy service is useful for both parties (both to business and consumers). Around 100 energy service companies are presented on the US market with a market value of 6 billion USD. 75% is shared between 10 large companies. Energy efficiency programs and a state financing promote the development of the market in the USA. Experts say that energy service is a brand new and a complex form of business for Russia. The most complex problem with attracting investments in energy service are development of mechanisms, administrative procedures, legal documents. Nevertheless, in 2014 the Ministry of Energy of the Russian Federation along with the Analytical center of the Government of the Russian created an Association of energy service companies - RAESCO. The main directions of the Association are: promotion of the establishment of a functional legal and regulatory acts, training of experts in the field of energy service, maintenance and consulting of energy and energy service companies (ESCO), and also ESCO selection for a specific project. A Government information system in the field of energy and energy efficiency (GIS) was established as an expert's portal on energy saving.

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TRAVEL CONSUMER JOURNEY IN THE DIGITAL ERA: THE ROLE OF ENGAGEMENT FOCI

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ABSTRACT

Traditional “funnel” metaphor no longer describes today’s reality. Consumers do not start with a set of potential destinations or tourism and hospitality brands in mind and methodically reduce that number to make a purchase. Decision-making process is more like a “circular journey” with four phases: *consider*, *evaluate*, *buy*, and *postpurchase* which includes stages such as *enjoy*, *advocate*, *bond*. Adopting this model, proposed in the June 2009 issue of *McKinsey Quarterly* by Court *et al.*, this study aims to investigate the main touchpoints that tourism brands can utilize as foci of consumer engagement. In order to achieve the objectives of this exploratory research, a web based, self-administered questionnaire was adopted. Results prove that across the overall course of the travel planning process consumers use a wide range of digital touchpoints that allow them to find information, conclude a purchase, and actively interact with tourism brands. Furthermore, this study furnishes interesting information about touchpoints preferences for some users.

Keywords: Consumer engagement; tourism; consumer-decision journey; engagement foci; touchpoints, travel and tourism brand management.

INTRODUCTION

A modern traveller has a wealth of digital tools at his/her disposal to find inspirations or to obtain information. Between booking sites, review sites, personal blogs and social networks, his/her mind wanders a long way before deciding the final purchase or even where to go. This shift in consumer decision-making means that traditional “funnel” metaphor no longer describes today’s reality. Consumers do not start with a set of potential destinations or tourism and hospitality brands in mind and methodically reduce that number to make a purchase. Decision-making process, as proposed in the June 2009 issue of *McKinsey Quarterly* by Court *et al.*, is a “circular journey” with four phases: *consider*, *evaluate*, *buy*, and *postpurchase* which includes stages such as *enjoy*, *advocate*, *bond* (Edelman, 2010).

Due to this non-linear and iterative consumer decision-making process, the most pertinent challenge for marketers is how to engage such a “schizophrenic” audience in a meaningful and compelling way. Thus, the research of those moments, or touchpoints, when consumers are open to influence has become strategic for brands and industries operating both in tourism and other contexts (Edelman, 2010).

Touchpoints represent what actually happens from the consumer perspective (Zomerdijk and Voss, 2010). Therefore, an in-depth understanding of the main touchpoints and casual episodes that occur at all the phases of the decision journey in tourism context can only be comprehended through a consumers’ subjective view.

This paper aims to contribute to tourism research in two ways. First, it analyses consumer behaviour in order to investigate the main touchpoints encountered in the course of the decision journey. Second, in line with Dessart *et al.* (2016) and Maslowska *et al.* (2016), this study proposes a reconceptualization of consumer engagement that reflects the complexity and dynamism of the environment in which consumers and companies interact, co-create and build relationships. In contrast to previous research which focus on one object of engagement in a given context, namely, a brand (Hollebeek *et al.*, 2014), an organisational entity (Vivek *et al.*, 2014), an online brand community (Brodie *et al.*, 2013; Baldus *et al.*, 2015) or a tourism social media brand (Harrigan *et al.*, 2017), we need to consider that, in reality, consumers engage with different foci simultaneously (i.e., a brand, a brand community, other actors such as other consumers, bloggers, influencers and media). Ignoring this aspect may lead to a partial understanding of the consumer engagement concept and its research model (Dessart *et al.*, 2016).

The paper is organized as follows. Initially, a theoretical overview of the main issues pertaining both consumer behavior model in tourism sector and consumer engagement is introduced. Thereafter, the methodology of the survey study is presented, followed by a presentation of the findings. We conclude by discussing the results and offering managerial implications, limitations, and directions for future research.

THEORETICAL BACKGROUND

Traditional decision-making model in tourism

According to Solomon *et al.* (2006), consumer behavior “is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires” (p. 6). In order to describe and understand the complexity of the processes involved in consumer behavior decision-making, researchers in the field of marketing suggest the use of models rather than definitions alone (Cohen *et al.*, 2014). Specifically, as stated by Engel, Blackwell

and Miniard (1995), “a model is nothing more than a replica of the phenomena it is designed to present. It specifies the building blocks (variables) and the ways in which they are interrelated” (p. 143). In tourism literature, scholars have been influenced by research outside tourism to explain consumer behavior (Cohen *et al.*, 2014). Most of the studies about travel decision-making process are based on classical buyer behavior theory such as the “grand models”. The main assumption of these models (e.g., Engel, Kollat and Blackwell, 1968; Howard and Sheth, 1969; Nicosia, 1966) is that consumers are seen as rational decision-makers. Hence, purchase process is depicted as similar to logical problem solving approach and as a multi-stage sequence of actions such as: (1) needs motivation; (2) problem recognition; (3) information search; (4) evaluation of alternatives and decision; (5) purchase; (6) postpurchase evaluation. Drawing from “grand models” researchers (e.g., Ajzen and Fishbein, 1980; Crompton and Ankomah 1993; Mayo and Jarvis, 1981; Moutinho 1987; Schmoll, 1977; Wahab, Crampon and Rothfield, 1976; Jeng and Fesenmaier 2002; Woodside and Lysonski, 1989; Sirakaya and Woodside 2005) describe tourists behavior as a funnel-like process of narrowing down choices among alternatives. The choices can be influenced by socio-psychological factors like attitudes, motives, values, personal characteristics and also non-psychological or external factors like time, price and advertising, situational and interactional factors (Sirakaya and Woodside, 2005).

Due to their deterministic view tourists’ decision-making models inspired to “grand models” have been criticized by several researchers. Choi *et al.* (2012), for instance, underline that these models focus on the destination choice process but cannot comprehend the vast range of decisions and purchases during the overall course of vacation planning. Furthermore, these models do not take in account of how technology, such as internet, social media and other digital interactive tools, is shaping consumer behavior in tourism context. Dunne *et al.* (2011), in fact, observe that thanks to the internet decision-making process is becoming less rigorous in its sequence, because information search and bookings occur simultaneously in some type of trip such as city break vacation. In this case of short-term vacation to a city destination with no other destinations visited en route the decision is last-minute, spontaneous, opportunistic and less complex.

From the “grand models” to the consumer decision journey

The internet and its related digital technologies have changed decision-making process by influencing the way consumers search, decide and purchase vacation destinations (Eleftherios and Neuhofer, 2017; Hudson and Thal, 2013). Due to the excess of online information and the capability of consumers to interact through social media with other consumers or directly with marketers, the traditional rationale consumers’ decision-making process does not completely fit with what really happens in reality. This means that the development of choice sets is not so linear. Consumers do not start with a set of potential destinations or tourism and hospitality brands in mind and methodically reduce that

number to make a purchase. As suggested in the June 2009 issue of *McKinsey Quarterly* by Court *et al.*, consumer decision journey is not a “step-by-step” sequential process, but its structure is much more iterative, circular and has four primary phases: *consider*, *evaluate*, *buy*, and *postpurchase* which includes different stages, namely, *enjoy*, *advocate*, *bond*.

The first phase encompasses behaviors such as need recognition, search, and the formation of consideration set assembled from exposure to information found on the web, ads, user generated contents, words of mouth, or other stimuli. In the second phase consumers, on the basis of the information provided, evaluate what they want and they add or subtract brands from their initial consideration set. In the third phase consumers proceed with a purchase. In respect to the other phases, this one is typically the most temporally compressed, but as underlined by Lemon and Verhoef (2016) “it has received a significant amount of attention in the marketing literature, which has focused on how marketing activities [...] and the environment and atmospherics [...] influence the purchase decision” (p. 76). The final phase, which represents the postpurchase experience, includes behaviors such as usage and consumption, positive post-purchase engagement phenomena like advocating, loyalty and trust, but also negative engagement, disappointment, loss of interest, and disengagement.

The term engagement: meaning and models

Recent academics marketing literature and business practice discourse provide evidence of the increasing usage of the term “engagement” in the context of business relationships and branding (Brodie *et al.*, 2013). Despite this explosive growth, a lack of established, unitary and shared conceptual and empirical definition of this term has been criticized (Hollebeek, 2011; Gambetti and Graffigna, 2013; Paruthi and Kaur, 2017). Some of the current scholars define the term “Engagement” as a multi-dimensional concept focused on consumers’ cognitive, emotional and behavioural dynamics in complex, interactive and/or co-creative marketing environments (Brodie *et al.*, 2013; Hollebeek *et al.*, 2014). Therefore, if we assume the person/consumer as the focal “engagement subject”, it follows that the specific “engagement object” may vary across contexts. For example, consumers engage with brands, firms, organisations, products or services, other consumers, brand communities, brand activities such as online advertising (Yang *et al.*, 2016), blogger and digital influencers (Uzunoglu and Kip, 2014).

Hollebeek *et al.* (2014) focus on the nature of brand engagement, that is, “on consumers’ cognitive, emotional and behavioural dynamics during specific brand interactions” (p. 154). In particular, the researchers present a consumers’ brand engagement measurement scale. The first level is represented by a ‘cognitive’ dimension during which the consumers process and elaborate information on a particular consumer/brand interaction (i.e. cognitive dimension). The second level refers to ‘affection’

dimension, that is the consumer's degree of positive brand-related affect in a particular consumer/brand interaction (i.e. emotional dimension). The third level, finally, regards the 'activation' dimension, that is a consumer's level of energy, effort and time spent on a brand in a particular consumer/brand interaction (i.e. behavioural dimension). This scale, also, has two outcomes, 'self-brand connection' and 'brand usage intent', which may represent useful information for managers. Thus, engagement is seen both as a strategic imperative for establishing and sustaining a competitive advantage, and as a valuable predictor of future business performance (Brodie *et al.*, 2013). In fact, brand engagement represents an important driver to emotionally connect with consumers in order to generate customer satisfaction, and loyalty outcomes (So, King and Sparks, 2014).

Recently, has been proposed a reconceptualization of consumer engagement that reflects the complexity and dynamism of the digital environment in which consumers and companies interact (Dessart *et al.*, 2016; Maslowska, *et al.*, 2016). In contrast with previous research, that mostly focused on specific object of engagement (e.g., online brand communities), the attention is drawn to the fact that in reality consumers engage and enter into relationship with different foci simultaneously. Maslowska *et al.* (2016), in fact, in order to describe an environment in which consumers can engage concurrently with different actors (i.e., a brand, a community, other consumers, a communication medium), introduced a new conceptual model of consumer engagement which it is called "customer engagement ecosystem" (p. 470).

In tourism studies customer engagement represents a phenomenon that has not been already well researched (Harrigan *et al.*, 2017). The extant scales (So, King and Sparks, 2014; Harrigan *et al.*, 2011) are not multi-focal, they do not use more than one engagement focus in a given context, but they concentrate solely on customer engagement with tourism brands. Thus, before developing a novel scale which offers the possibility to understand consumer engagement in a correct way, there is a need to explore the tourism engagement ecosystem and find out the main engagement foci encountered by consumers during their decision journey.

STUDY OBJECTIVES

Adopting consumer decision journey model, this study aims to examine consumers behaviors during the four different phases of decision-making process in tourism context. Specifically, the objectives of this study are as follows:

1. To identify the main sources of destination and travel inspiration.
2. To understand how information is acquired online to facilitate travel planning. In this case Llodra-Riera *et al.* (2015) indicate that the internet is a channel which includes several

information sources with different natures, such as search engines, official websites, forums, applications for sharing photos and videos. According to Izquierdo-Yusta and Martínez-Ruiz (2011), this process of searching for information is a way to reduce the information asymmetries.

3. To explore the touchpoints utilized for final purchase (e.g., travel booking websites, mobile apps or travel agency websites).
4. To describe the main postpurchase behaviors. Specifically, we focus on two different kinds of postpurchase behavioral outcomes. The first relates to sharing travel stories on social media as a mechanism for tourists to increase their sense of well-being (Seonjeong and Haemoon, 2017). The second relates to promoting attitudes, that is consumers recommend to strangers and friends their experiences with a tourism/hospitality brand (Munar and Jakobsen, 2014; Bae *et al.*, 2017).

A detailed examination of consumer decision journey represents the base to investigate the main touchpoints that the different actors involved in the tourism industry could utilize as foci of consumer engagement.

METHODOLOGY

Study design

In order to achieve the objectives of our exploratory research, a web based, self-administered questionnaire was adopted. The survey consisted of five Sections. The first Section contained specific statements in order to explore the main sources of travel inspiration. The second Section included statements about the main tourism information sources. The third Section concerned the booking phase. The fourth Section was prepared to discover the main tourists postpurchase behaviors. The last Section asked a few demographic questions. To generate an adequate pool of items reflecting the four phases of the consumer-decision journey, the authors conducted an extensive literature review. All constructs from Section 1 to 4 were measured using a 5-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The specific 24 items used in this study are shown in **Table 1**.

Constructs	Items	
Inspiration	1. I use search engine for travel inspiration. 2. I use tourism websites and blogs for travel inspiration. 3. I am inspired by travel and tourism brands content published on Facebook. 4. I am inspired by travel and tourism brands content published on Twitter. 5. I am inspired by travel and tourism brands content published on Instagram. 6. I am inspired by friends/followings' content published on their social media profiles. 7. I am inspired by user-generated content published on travel and tourism brands communities. 8. I am inspired by travel and tourism brands digital advertising campaign.	
Information	9. I use keyword research to find information for travel planning. 10. I use booking websites (i.e., Booking.com, Trivago, Airbnb) to find information for travel planning. 11. I use travel and tourism brands social media profiles to find information on travel planning. 12. I use online consumer reviews to find information on travel planning. 13. I ask travel and tourism brands community members for help.	
Booking	14. I use travel agency website to complete booking for transportation, lodging, or dining. 15. I use booking websites (i.e., Booking.com, Trivago, Airbnb) to complete booking for transportation, lodging, or dining. 16. I use mobile app to complete booking for transportation, lodging, or dining.	
Postpurchase	Interaction	17. I like to share my travel experience with others on my personal Facebook profile. 18. I like to share my travel experience with others on my personal Twitter profile. 19. I like to share my travel experience with others on my personal Instagram profile. 20. I like to share my travel experience with other tourism brands community members. 21. I like to write a review on travel or booking websites.
	Advocating	22. I say positive things about my favourite travel and tourism brands on social media. 23. I actively defend my favourite travel and tourism brands from its critics. 24. I promote my favourite travel and tourism brands on social media.

Table 1. Survey Items.

Data collection was carried out in Italy. The electronic questionnaire, created with Google Forms, was randomly distributed via e-mail to our own contacts list. The period for data collection was between November and December 2017. Finally, a total of 111 subjects responded to our e-mail and participated in the survey. A summary of the demographic characteristics of 111 respondents is provided in **Table 2**. As we can see more of the half of the participants were Female (51,4%). The majority of the participants were between ages 25 and 34 (55%) and between 18 and 24 years (21,6%).

	Frequency	%
Gender		
Male	54	48,60%
Female	57	51,40%
Age		
Less than 18	0	0%
18-24	24	21,6%
25 to 34	61	55%
35 to 54	21	18,9%
55 to 64	5	4,5%
More than 65	0	0%

Table 2. *Demographic characteristics of the respondents.*

RESULTS

A Distribution of answers and descriptive statistics are shown respectively in **Table 3** and **Table 4**. Results show that when finding for travel inspiration tourists are more inclined to use search engines (97,3 percent agreement), tourism websites and blogs (88,29 percent agreement), branded content published on Facebook (76,58 percent agreement) or Instagram (67,57 percent agreement), friends/followings' posts on social media (82,88 percent agreement), and user-generated content published on travel and tourism brands communities (55,86 percent agreement). While the least used are content published on Twitter (77,48 percent disagreement), and advertising campaign (72,98 percent disagreement).

In regard to the items on tourism information sources, the most common search strategies are keyword research (97,03 percent agreement). Booking websites (95,5 percent agreement), travel and tourism brands social media profiles (71,17 percent agreement), and online consumer reviews (91,89 percent agreement). From the statistical analysis it emerges that in the case of the item 13 the frequency distribution is bimodal. The 45,95% of the respondents disagreed with the statement "I ask travel and tourism brands community members for help", to the contrary the 41,44% agreed.

Being dedicated to their goal of completing booking for transportation, lodging, or dining, the 93,66% of respondents expressed agreement about the utilization of Booking websites (i.e., Airbnb, Booking.com, Trivago, Experia and Priceline). Least used are Travel Agency websites (68,43 percent

disagreement), while contrasting opinions are expressed with regard to the utilization of mobile app to complete the purchase.

Items	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree	
	F	%	F	%	F	%	F	%	F	%
1.	0	0,00	0	0,00	3	2,70	64	58,56	43	38,74
2.	2	1,80	4	3,60	7	6,31	48	43,24	50	45,05
3.	4	3,60	12	10,81	10	9,01	76	68,47	9	8,11
4.	40	36,04	46	41,44	10	9,01	11	9,91	4	3,60
5.	4	3,60	15	13,51	17	15,32	62	55,86	13	11,71
6.	3	2,70	5	4,50	11	9,91	79	71,17	13	11,71
7.	9	8,11	31	27,93	9	8,11	55	49,55	7	6,31
8.	30	27,03	51	45,95	11	9,91	16	14,41	3	2,70
9.	1	0,90	1	0,90	1	0,90	65	58,56	43	38,74
10.	2	1,80	1	0,90	2	1,80	17	15,32	89	80,18
11.	4	3,60	15	13,51	13	11,71	74	66,67	5	4,50
12.	1	0,90	1	0,90	7	6,31	36	34,23	64	57,66
13.	10	9,01	40	36,04	15	13,51	44	39,64	2	1,80
14.	38	34,23	38	34,23	10	9,01	19	17,12	6	5,41
15.	1	0,90	0	0,00	6	5,41	13	11,71	91	81,98
16.	19	17,12	44	36,64	9	8,11	32	28,83	7	6,31
17.	8	7,21	11	9,91	4	3,60	67	60,36	21	18,92
18.	60	54,05	35	31,53	7	6,31	8	7,21	1	0,90
19.	8	7,21	2	1,80	3	2,70	51	45,95	47	42,34
20.	11	9,91	39	35,14	11	9,91	46	41,44	4	3,60
21.	6	5,41	15	13,51	7	6,31	73	65,77	10	9,01
22.	5	4,50	7	6,31	12	10,81	80	72,07	7	6,31
23.	12	10,81	36	32,43	22	19,82	37	33,33	4	3,60
24.	4	3,60	6	5,41	8	7,21	77	69,37	16	14,41
N = 111										

Table 3. *Distribution of answers*

Focusing on the postpurchase phase, data reveal that the majority of respondents share their travel experiences and stories on their Facebook profile (79,28 percent agreement). While Twitter is less utilized (85,57 percent disagreement), Instagram is largely adopted by web users to post photo or video of their own travels and vacations (88,29 percent agreement). The survey also shows that the 74,78% of interviewees agree with the statement "I like to write a review on travel or booking websites." Analysing customer advocacy during the post-purchase phase, it emerges that the 78,38% of respondents agreed with the statement "I say positive things about my favourite travel and tourism brands." Regarding the statement "I actively defend my favourite travel and tourism brands from its critics." 43,24% disagreed and 36,93% agreed. Lastly, the majority of respondents (83,78%) agreed with the statement "I promote my favourite travel and tourism brands.

Item	Mean	Median	Mode	Variance	Sd	Skewness	Kurtosis
1.	4,36	4	4	0,29	0,54	0,04	-0,92
2.	4,26	4	5	0,76	0,87	-1,55	2,99
3.	3,67	4	4	0,82	0,91	-1,36	1,53
4.	2,04	2	2	1,18	1,09	1,10	0,55
5.	3,59	4	4	0,97	0,99	-0,88	0,26
6.	3,85	4	4	0,62	0,79	-1,65	3,97
7.	3,18	4	4	1,33	1,15	-0,43	-1,10
8.	2,20	2	2	1,16	1,08	0,84	-0,09
9.	4,33	4	4	0,41	0,64	-1,49	-6,56
10.	4,71	5	5	0,52	0,72	-3,40	13,34
11.	3,55	4	4	0,83	0,91	-1,25	0,83
12.	4,47	5	5	0,54	0,74	-1,70	4,15
13.	2,89	3	4	1,19	1,09	-0,12	-1,32
14.	2,25	2	1	1,55	1,25	0,74	-0,63
15.	4,74	5	5	0,41	0,64	-3,05	11,25
16.	2,68	2	2	1,53	1,24	0,29	-1,19
17.	3,74	4	4	1,21	1,10	-1,25	0,87
18.	1,69	1	1	0,89	0,94	1,45	1,56
19.	4,14	4	4	1,16	1,08	-1,80	3,00
20.	3,69	4	4	0,74	0,86	-1,71	2,93
21.	2,86	3	4	1,23	1,11	-0,05	-1,11
22.	3,59	4	4	1,03	1,01	-1,20	0,67
23.	3,86	4	4	0,74	0,86	-1,62	3,34
24.	2,94	3	4	1,31	1,15	-0,13	-1,33
N = 111							
Sd = Standard deviation							
Alpha = 0,84							

Table 4. *Descriptive statistics.*

DISCUSSION

The first objective of this research was to better understand tourists' behavior in terms of their decision journey. Results prove that across the overall course of the travel planning process consumers use, or encounter, a wide range of digital touchpoints that allow them to find information or actively interact with a brand operating in travel and tourism sector. Furthermore, analysing the decision-making structure, this study contributes to academic literature furnishing interesting information about touchpoints preferences for some users. Specifically, we discovered that during the *consider* phase of the "journey", that includes activities such as finding travel inspiration, searching information, and comparing prices, consumers can utilize simultaneously or in a recursive way different types of touchpoints. For example, consumers do most of their research using search engines and travel comparison sites such as Trivago, Airbnb and Booking.com, but they can also tap into social media such as Facebook to consult tourism brands channels and find interesting information for their travel or vacation.

While in the *buy* phase consumers prefer to utilize travel booking website to complete booking for transportation, lodging, or dining, the *postpurchase phase* (*enjoy, advocate, bond*) is more fragmented. Consumers in this phase may adopt different social media tools, such as Facebook or Instagram, to share their experiences or promote their favourite brand. They also can leave a review on travel booking websites, and take part in a brand community in order to strengthen their bond with hotels, restaurants, airline brands, destinations and places.

The second objective of this research was to explore where consumers spend their time during the decision journey in order to find out those touchpoints that, from a marketers perspective, facilitate consumer engagement with tourism brands. Thus, search engine, websites, blogs, social media, community members and the brand itself represent some of the different foci of consumer engagement that often coexist in a given tourism consumption context. Each of these components may play different and variable roles in the formation of relevant consumer relationship outcomes (Dessart *et al.*, 2016). For example, some of these touchpoints may facilitate brand dialogue behaviours (i.e., Facebook, Instagram), others simplify brand consumption and shopping behaviors (i.e., booking websites), and others furnish helpful and trustworthily information (i.e., brand community members, consumers who leave a review).

Finally,

MANAGERIAL IMPLICATIONS

The application of the new consumer decision journey model to the tourism sector shows what type of channels consumers prefer to utilize during the four different phases. Thus, from a managerial standpoint, this research shed light on those specific moments in which consumers are more attentive. Basing on this information, marketers have the opportunity to better allocate their economic resources across different media. For example, in order to capture consumers' attention during the *consider* and the *evaluate* phase of the journey marketers can advertise on search engines utilizing keywords-targeted campaigns (i.e., Google AdWords). In the postpurchase phase marketers adopting social media channels such as Facebook should nurture customer loyalty programme. Gamboa and Gonçalves (2014) in their empirical research underline that "dynamism and interaction with fans are important tools to make people come back, trust in the brand, and be satisfied" (p. 716). Zhang *et al.* (2016), instead, demonstrate that "consumers are more likely to develop trust, commitment, and satisfaction toward a brand in social commerce if they (1) identify an excellent match between their self-concepts and the brand image; (2) want to comply with social expectations from others; (3) receive

high-quality information by following the brand page; and (4) find that the company actively interacts with its followers" (p. 21).

LIMITATIONS AND SUGGESTION FOR FUTURE RESEARCH

This study suffers from a set of limitations that should be acknowledged. First, the sample size used in this study is relatively small and limited to Italian population. Thus, future studies can consider to choose a large cross-cultural sample in order to get reliable results and find out cultural differences and similarities. Second, this study is not exhaustive in terms of the number of touchpoints that consumer's can utilize during the decision-journey. A further study including a wider range and higher number of touchpoints can provide a more accurate knowledge about how consumers find information, conclude a purchase or interact with a tourist brand in the postpurchase phase. To conclude, we strongly advocate that exploring consumer decision journey on a deeper level will provide in the future significant insight about how, when, and where marketers can engage with consumers.

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VALUE-BASED HEALTH CARE IN PORTUGAL: VISIONS AND REFLECTIONS OF KEY STAKEHOLDERS

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ABSTRACT

This study sought to explore the existing academic literature through the bibliographical research to approach the theme “value-based health care”, focusing on its main sub-concepts: definition of value, monitoring of results, process standardization, risk sharing, incentives and results-based financing. It was made in order to present a status of the theme in Portugal, also presenting the prime indicators of the steps taken to the application/ use of this concept in Portugal. Qualitative data analysis was carried out of in-depth semi-structured interviews with fifteen of the main stakeholders, thus presenting five sample groups with three elements each (physician, nurses, patients, hospital managers and pharmaceutical industry). It was sought through their opinions and experience to understand the perspectives on the subject as to their applicability, development, implementation and possible consequences in Portugal both in the National Health System (NHS) and in the private sector. Regarding the applicability and implementation of ‘value-based health care’ in Portugal, through the research conducted several points were found that demonstrate an attempt to move towards this change. Nevertheless, considering all the information gathered, we can conclude that we are still a little far from its implementation, but that in the coming years will be a reality to health in Portugal. With a possible application, implementation and development of ‘value-based health care’ in Portugal, it is expected a greater satisfaction, quality, and equity for patients as well as for health professionals.

Keywords: Value; Standardization; Monitoring; Costs; Innovation; Health care.

INTRODUCTION

In the current reality of an aging society, increasing prevalence of chronic diseases, the continued introduction of new health technologies (medicines and medical devices), which may be more effective but also more expensive, increase in non-medical needs and the requirement of quality of services provided by patients, as well as a higher rate of new means of diagnosis and more expensive

treatments and the consequent increase in the costs of health care are some of the main factors that contribute to health spending, threatening widespread access to health care, as we know it today, for future generations (Janssen and Moors, 2013).

With the global change of approach based on values, the new challenges have increased in the form of defining exactly what 'value' means to patients and health systems on a global basis. Simply, value-based care is when all stakeholders take responsibility for improving patient outcomes in relation to their cost. And while simple, in theory, turning value-based health care into reality is complex and requires a new era of innovation and risk to materialize (Ishrak and Kaplan, 2016).

Thus, the sustainability of health systems depends on an adaptive process that encompasses not only deep demographic changes, where population ageing stands out but also access to new practices, procedures and technologies, aiming at obtaining better health outcomes. Sustainability implies valuing quality over quantity and, as such, converting spending into health gains for the patient and the community. This is the starting point for value-based financing models, where value creation for users is the pay vector for all actors in the system. Simply reducing costs without careful consideration of their impact is potentially dangerous and damages the system, leading to 'false savings' and having a negative impact on the care provided. The focus should be, consequently, the generation of value-by-value (Alves et al., 2016).

Through a bibliographical research it was verified that this is a recent subject, still lacking in bibliography and data on its applicability. However, there are already some pilot projects in the implementation phase and others in the implementation phase that allows us to draw important conclusions about this issue. As an example of some of these pilot projects, the pilot project carried out in Stockholm (Sweden) has been described with the purpose of carrying out the measurement of costs by global treatment and not only the estimation of costs of isolated treatment, in order to estimate the global value of hip / knee prosthetic treatment (Porter, 2016).

This study aims to reflect on the recent value-based approach to health in Portugal. To this end, a bibliographic research was carried out in order to deepen and explore concepts and knowledge about this subject, focusing on its main sub-concepts. As a data collection instrument, structured interviews were used with the purpose of obtaining knowledge, experience and opinion from a small sample of some of the main stakeholders involved in the health area, establishing a current situation, evaluating perspectives on applicability, development, implementation and possible consequences of the theme in Portugal, both in the NHS and in the private sector.

After this introduction, we present a brief literature review. Section three describes the methodology used. In the fourth section, the results are presented, followed by the final sections' discussion of findings and this study's limitations and implications.

LITERATURE REVIEW

Currently, there is a gap in communication, interests, and objectives (which appear to be distinct and independent) between health professionals and healthcare administrators. Managers are financially oriented, simply focusing on cost reduction, while healthcare professionals focus on patient care and mission, often having little concern about their costs (Ishrak and Kaplan, 2016). In Portugal, the hospital financing is largely done by case/episode, in particular as regards the payment of hospitalization, outpatient surgery and also the payment for the subsystems and third-party payers has, therefore, a strong component based on the information generated by the Homogeneous Diagnostic Groups – HDG. As several critics have pointed to GHD (e.g., Segovia, 2009), it is fundamental to evaluate new models of hospital financing. In this context an important transition of health care begins, anticipating a transformational change with the passage of a sector where the financial reimbursement is based on the volume of visits, tests and procedures of the patient to a system destined to reward better results of the patient at lower costs. This new focus on value-based healthcare requires new processes and approaches to care delivery, coupled with new ways of assessing costs and outcomes. Measurement standardization is a key element in making it possible to move to value-based medical care. New structures are needed so that health professionals can understand how to provide the most effective treatment for the patient's medical condition over a full course of care (Ishrak and Kaplan, 2016).

Some agreements already established between the pharmaceutical companies and the Portuguese national health system demonstrated the tendency of preparation to adopt this type of contracts and the sharing of budgetary risk. It is necessary to achieve consensus between providers, payers and suppliers, listening to patients and citizens in general, how much innovation deserves to be rewarded in price, transforming the traditional way of approaching the introduction of innovative therapies as an incremental and non-substitutive cost. For this, a political reflection is crucial, where appropriate criteria are identified to support a level of investment that results in an adequate expenditure on medicines for Portuguese users (Alves et al., 2016).

The patient's choice and the competition to get patients are powerful forces to encourage continuous improvement of value and restructuring of care, current competition in health care is not aligned with the value. According to this new system created and developed by Michael Porter, the overall goal of healthcare should be the value to patients, rather than access, cost containment, convenience, or customer service (Porter, 2012). Figure 1, referring to Porter's work, elucidates that current competition in health care is not in line with the value to the patient. There is a greater concern for financial success and cost containment than for creating value for the patient.

Innovation

Innovation, in general, is seen as an engine of economic and social development (Chen and Guan, 2010; Bilhim et al., 2013). According to Ganter and Hecker (2014), innovation represents an advantage in competition and in adapting management to new challenges, generating wealth and growth. The capacity of innovation in all sectors promotes a change in the way organizations adapt to new economic and technological environments in an increasingly dynamic and global world. In this follow-up, Calantone et al. (2010) affirm that the promotion of innovation implements various aspects such as technological development, customer/user orientation and markets, the need to achieve a better level of performance, as well as the promotion of new products/services. With this, it is possible to create new knowledge in production and processes.

Innovation is closely related to the renewal of routines, procedures and mechanisms that promote information sharing in a coordinated way, in proactive teamwork, reducing administrative costs, transaction and transaction costs, improving employee satisfaction in the workplace, increasing productivity, promoting union and contribution of workers (Alpkan et al., 2011). According to Damanpour et al. (2010), the adoption of innovation by public organizations allows improving the service provided to citizens in terms of quality and also management, improving the management of available resources, reaching more citizens and providing better assistance and quality of life.

Equity

According to Law No. 48/90 of August 24 of the Basic Health Law, the National Health Service must be universal in order to guarantee equality of access for the users, with the objective of mitigating the effects of economic, geographical and other inequalities in access to care. According to the Commission on Social Determinants of Health - CSDH (2008), equity in health is the absence of avoidable, unjust and modifiable differences in the health status of population groups from diverse social, geographic or demographic contexts. Respect for the principle of equity implies the absence of inequitable differences in the responses offered by the health system to the equal needs of different citizens. It is also expressed by the equal opportunity of each citizen to reach their health potential.

In Portugal, health policies seek to guarantee equity in the distribution of resources, access to and use of services (Basic Health Law no. 48/90 of 24 August, with amendments introduced by Law no. 27/2002 of 8 November). Health inequalities are a matter of social justice, not being fair that a person has poorer health or shorter life expectancy due to lack of material resources, worse living conditions, lower level of literacy, or work status (OPSS, 2016).

Some studies prove the existence of health inequalities, related to socioeconomic factors, namely a study by Chetty et al. (2016), published in the Journal of the American Medical Association, which shows that between 2001 and 2014 the richest men in the US lived on average 14.6 years longer than the poorest men, with a 10.1 year difference in the female gender (OPSS, 2016). When we look to

Europe the data point to the increase in inequality, in relation to premature mortality, except in the countries of southern Europe where these inequalities were already high (Mackenbach et al., 2015). The same problem occurs with access to medicines considered essential by the World Health Organization, with inequities in their access and consequent use in different socioeconomic groups (Vogler et al., 2015). In this international panorama, and despite efforts to combat inequality, in Portugal the issue of unequal access to health and social justice is problematic, and there are currently disparities in several health indicators regarding different levels of education, gender and socioeconomic levels (Campos et al., 2016; OPSS, 2016).

METHODOLOGY

The methodology used in this study was to conduct a descriptive, exploratory study with a qualitative approach, using face-to-face and structured interviews, through questions of open answers. It is an exploratory study, because we want to give an overview and the closest to the object of this study that is a new phenomenon, which, precisely because it is new, does not yet have a systematic description.

Five types of samples were defined, of which: 3 nurses, 3 doctors, 3 hospital managers, 3 managers of pharmaceutical companies or health technology and 3 patients. These are some of the key stakeholders of the 'Value-Based Healthcare' concept/approach, in order to compare all views/opinions, experiences and knowledge.

The pre-requisites for the sample selection in the different populations were the following: 1) Nurses - Minimum requirement of 5 years of experience, aged between 30 and 45 years of age; 2) Physicians - Minimum requirement of 5 years of experience, maximum age of 55 years; 3) Hospital managers - Professional experience in the area of health over 20 years; 4) Managers of Pharmaceutical Companies or Medical Technologies - Professional experience in the area of health over 15 years; and 5) Patients - Academic degree at least equivalent to a bachelor's degree, aged between 25 and 40 years old.

The required professional experience is justified by the technical and field knowledge, as well as the monitoring of the evolution of the treated area. The method of data analysis used was discourse analysis to build theory using the software QSR Nvivo Version 11 for qualitative analysis.

RESULTS

Characterization of the sample

The sample characterization consists of 15 interviewees who represent the stakeholders with a predominant role in the day-to-day health units (Table 1). Thus, 5 sample groups with 3 elements are presented. The healthcare groups, such as nurses and physicians, the patient's group, the hospital management group, and the healthcare companies' managers group. The mean age of the 15

interviewees under study is 41.47 years, of which 11 are male and 4 are female. The average years of experience in the health sector are 17.1 years. Regarding academic qualifications, we found that 6 have a bachelor's degree, 1 has a post-graduation, 5 have a master's degree (1 in medicine) and three a PhD. It should be noted that the group of hospital managers are those with a higher average age (55 years), more professional experience in the health sector (28 years) and a higher level of academic qualifications (PhD).

Interview analysis

Through the analysis of the interviews carried out, the concept of health value is associated or interconnected with other concepts such as innovation, quality, satisfaction, and equity (Figure 1). Although the concept of value promotes, within this value-based approach to healthcare, the practice of monitoring that precedes and allows the standardization of health procedures, predicts effective risk sharing and an efficient allocation of incentives the use of healthcare technologies, which in turn help a more efficient and effective monitoring, resulting in cost savings (Figure 1), thus resulting in health care value.

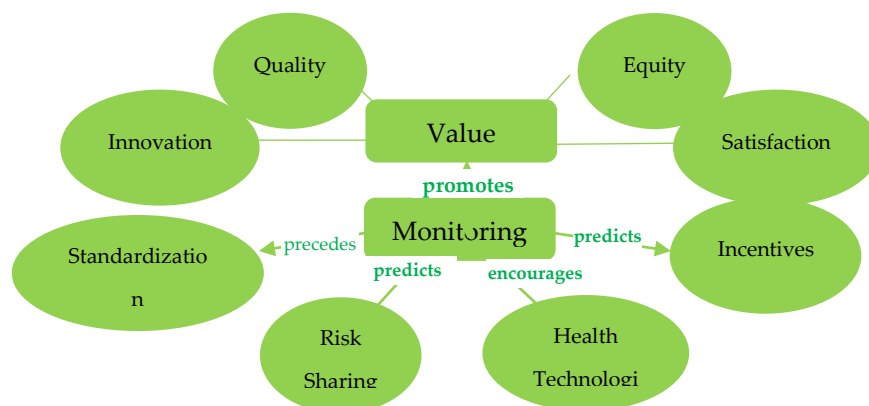


Figure 1 – Concepts associated with value-based health care

Having presented the key concepts mentioned by the 15 interviewees related to the concept of value-based healthcare, we will present the most detailed results obtained through the interviews analysis, thus promoting an exploratory analysis of the subject.

Value in health care

In what concerns the perception of what is the value in health and if the concept of health based on value is (or not) known by the respondents presented different answers in the different groups. On the one hand, they point out that health value is associated with access health care, either to treatments, stating that

value in health is the patient having quick and effective access to treatments (A-3 - Nurse)

either associated by the group of patients to the performance of health professionals and the diagnosis and prevention, stressing the

(...) capacity to correctly address problems that arise, as well as the ability to screen and prevent serious diseases through methods that allow them to be detected early (C-3 - Patient).

an opinion shared by the group of managers of companies of the health sector for whom

(...) the value in health is what the patient/citizen benefits from the investment that is made in the treatment of diseases or their prevention (E-2 – Health sector business manager).

On the other hand, the group of physicians associates health value with the

(...) type of services provided to the patients, measured through various parameters (B-3 – Physician).

being highlighted the effectiveness

(...) is understood as the resolution of the patient's problem (B-3 – Physician).

It should be noted that among the group of physicians, nurses and hospital managers, there are those who associate value with the results / costs binomial, considering that

(...) value in health is a complex equation that, among others, relates the results in health with the respective cost (B-2 – Physician)

being also considered

(...) the biunivocal relation between the economic cost to health (understood broadly and not only of clinical healthcare) and its direct relationship with perceived health (D-1 – Hospital manager).

It should be noted that the binomial results/costs is the basis of the methodology of health based on value, a concept already known by the interviewees. Among the items associated with the value-based health care concept, should be highlighted, according to the result of the interview analysis, the quality, satisfaction, innovation and equity.

Quality

With respect to quality, this was primarily referred to in the rendering of services, more precisely when value is associated with

(...) moral/ethical quality and that drags all other parameters of quality (B-1 - Physician).

an opinion also shared by the group of hospital managers for whom although the value in health can be understood and determined through several aspects

(...) has as main aspect the quality of the services/treatments provided to the users (D-2 – Hospital manager).

Satisfaction

Having value-based health care a great focus on the user, the perception of their satisfaction is a key item in this concept, being associated with the group of patients when they refer that the

(...) value in health is obtained through the satisfaction of clients / users (C-1 - Patient)

reiterating that value-based health care is a

(...) concept that privileges the way in which the service is provided, from the conditions and competences, but also from the perspective of the patient, that is, if he was satisfied with the service he sought (C-1 - Patient).

It should be noted, however, that the association of value-based health care with satisfaction is not only performed by patients, with the group of hospital managers emphasizing that the underlying basis for this concept is quality and innovation in the health system as well such as the

(...) satisfaction of professionals and clients (D-3 – Hospital manager).

and that associated to an increase of effectiveness there will be a

(...) greater satisfaction of the users and also of the health professionals themselves (D-2 – Hospital manager).

Innovation

Innovation is considered by the group of hospital managers as a result of the increase in quality that can be achieved precisely through the

(...) innovation of processes, materials, techniques or other means that contributes to the evolution of the health system (D-3 – Hospital manager).

The managers of health companies have the opinion that the use of the concept of health based on value, in particular in some of its aspects such as risk sharing, could encourage innovation by manufacturers / providers since there

(...) will be liberation of financial and human resources that will boost innovation and productivity in this area of health (E1 – Health sector business manager).

indicating that the companies will seek

(...) to make more partnerships and fulfill the proposed objectives, hence continuing to seek innovation that allows adding value in health (E3 – Health sector business manager).

Equity

Equity is an item intrinsically associated with the patients' opinion about the NHS, and therefore, with the perception of the user of value-based health care, namely in the access to qualify doctors, inferring from the analysis of the interviews that for the patients in the sample there is equity in the NHS at several levels, particularly with regard to the

(...) distribution of health services in areas of low population density or areas of the interior of the country (C-2 - Patient).

Patients warn of the lack of accessibility

(...) to certain treatments, either because they are rare or have high costs (C-1 - Patient).

as well as for the

(...) deficiency in managing some processes which then translates into huge waiting lists (C-1 - Patient).

Monitoring

With regard to the monitoring of results as well as their dissemination, the opinion of the several stakeholder' groups is diverse, although the positive aspects of the results are generally recognized. They emphasize the ability to assess the impact of adopted health programs, with the group of physicians reporting that

It is undoubtedly important that health outcomes be monitored and disseminated so as to measure the health impact of ongoing programs, as well as new measures and policies adopted. These results should be known (population, health professionals and political agents) (B-2 - Physician).

as well as the group of health sector business managers who, reinforcing this idea, state that

(...) it is essential to measure the clinical outcomes of the treatments, the preventions and the screenings, in order to justify and analyze if a health investment was worth, It's worth it and it's worth doing (E-3 – Health sector business manager).

which, according to the nurses' group, makes it possible

(...) to compare data in order to know which processes / treatments are most effective and vice versa (A-2 – Nurse).

allowing, likewise, to verify the

(...) effectiveness of awareness-raising campaigns on certain diseases (C3 – Patient).

According to the nurses' group, this comparison of data

(...) will lead to a possible sharing of knowledge on the part of all health professionals (A-2 – Nurse).

corroborated by the hospital managers who emphasize the benefit that this measure has in the sharing of knowledge by health professionals as well by their managers, stressing that their impact will be greater if this monitoring is carried out using

(...) well-defined monitoring parameters used at national and international level (D-2 – Hospital manager).

being this monitoring based mainly on

(...) the results of the quality of the services / treatments obtained by the users (D-2 – Hospital manager).

In this way it will be possible to

(...) monitor health worldwide and even be able to share data and knowledge with other countries (D-2 – Hospital manager).

Another aspect of the benefits of monitoring and disclosure highlighted in the interviews concerns the advantages for the processes and resources, and it is the opinion of the hospital managers group that monitoring

(...) defines the adequacy, effectiveness and efficiency of the processes (D-1 – Hospital manager)

thus allowing to

(...) define in detail assertive strategies and indicators of process and result that enhance the optimization of resources and processes (D-1 – Hospital manager).

Regarding the implications for clinical practice, monitoring also has advantages because, as the patients' group refers, it is a

(...) tool that at the same time records clinical procedures and outcomes (C-1 – Patient).

allowing for

(...) more organized, detailed and more regular client follow-up and clinical procedures (C-2 – Patient).

enabling the

(...) monitoring of the patient by other professionals (C-1 – Patient).

It should also be mentioned two collateral notes highlighted by two of the groups interviewed.

Patients emphasize that monitoring allows quantified and qualified recording of clinical acts, which allows the

(...) safeguarding the [health care] professional (C-1 – Patient)

and, in a more manageable aspect, at the level of management control, hospital managers are of the opinion that it is

(...) a great help in controlling costs (D-2 – Hospital manager).

Standardization

Considering that under the value-based approach to health the standardization of health procedures is one of the main items and what creates greater doubts and difficulties in its application, it becomes pertinent to know the opinion of the stakeholders involved in order to try to understand which the difficulties and benefits of its possible use / implementation. Regarding the benefits of its application, both the nurses' group and the physicians' group showed benefits in their application, with the nurses' group emphasizing a beneficial approach at several levels, such as the

(...) reduction of waiting time, reduction of the time of the treatment process since unnecessary exams / treatments would be eliminated, thus reducing the use of medicines, supplies, use of medical equipment and time spent by health professionals (A-2 - Nurse).

as well as, in the opinion of the group of doctors, and based on proven studies, in reducing

(...) human error and being able to offer patients assurances that entering a hospital is not entering a game of chance (B-3 - Physician).

It should be noted that, in general, for the group of physicians, some of the health processes

(...) can and should be standardized (B-2 - Physician)

and, according to hospital managers,

(...) facilitates decision making and facilitates clinical practice. It is important that those who arrive with a certain pathological diagnosis are subject to a highly standardized procedure, in order to be uniform to all professionals (D-2 – Hospital manager).

As far as health professionals are concerned, standardization has advantages because it allows

(...) create more knowledge about certain treatments and have more time to treat other patients (A-2 - Nurse).

as well as beneficial for the administration of hospitals as it leads

(...) a reduction of costs, without reducing the quality / results obtained by the patients (A-2 - Nurse).

this being also the opinion of hospital managers and health sector business managers who reiterate that it

(...) would be a way of controlling and reducing costs without jeopardizing the quality of the services / treatments provided (D-2 – Hospital manager; E-2 – Health sector business manager).

In addition to the benefits listed by the various quarters of stakeholders, there are generalized reservations on the part of these groups regarding their application, these reservations being based on two facts: (1) on the one hand the notion that individuals are single and different from each other, and (2) on the other the perception that the NHS is still not prepared to follow up on this concept. Regarding the notion that individuals are one-sided and different from each other, the group of physicians points out that

In health more than another sector, each case is a case (B-3 - Physician).

considering that it is not feasible to standardize everything that is done in health, in that

(...) in the moment of care there are particularities (in each case) that need to be met and most of the time implies avoiding the pre-established standards (B-2 - Physician).

existing in the group of nurses who are also of the opinion that

(...) each case is a different case and each individual has different beliefs, habits and values and each case or pathology should not be treated as equal for different individuals (A-1 - Nurse).

as well as in the group of hospital managers where, although it is important to have generic guiding procedures, some people are in tune when referring that

(...) individuals are one-person and different from each other, so that the implementation of a procedure in an individual for a particular pathology may be very different for another individual with the same pathology (D-1 – Hospital manager).

Regarding the perception that the NHS is not yet ready to follow up on this concept, the nurses' group considers that the implementation of monitoring of health outcomes is already a first step in the way of its implementation, however for these

(...) each case is a case and that the implementation of process standardization is a very complex approach, and the NHS is very far from its implementation (A-2 - Nurse).

Safeguarding that in its implementation

(...) it should not be forgotten that there are exceptions to the rule (A-3 - Nurse).

However, the most critical word comes from hospital managers for whom

(...) it is quite complex and I think the NHS is not yet prepared to follow up on this concept (D-1 – Hospital manager).

although they are of the opinion that

(...) certainly in the next few years this will be implemented in some pathologies, but only when there is a correct monitoring in order to be able to standardize the processes based on data (D-1 – Hospital manager).

Risk sharing

Risk sharing is a payment method directly associated to the monitoring system, being another of the main items associated with value-based health care, making it possible to assess the opinion of hospital managers as well as managers of health companies. In general, these managers agree with this method considering it

(...) quite interesting in the perspective of risk sharing as a method of payment of innovative medicines / medical technology (D-2 – Hospital manager).

and from the administrative and budgetary perspective, a method that favors

(...) a greater margin of negotiation (D-2 – Hospital manager)

considering it the most

(...) fair way to classify or evaluate a medicine (D-3 – Hospital manager)

because, in the opinion of the group of hospital managers, it allows to avoid

(...) that the NHS carries with costs of medicines / medical technology that in fact were not effective as expected. Thus forcing pharmaceutical and medical technology companies to cease having overvalued prices and only receive fair prices sharing a part of the risk (D-2 – Hospital manager).

agreeing that these protocols

(...) between investors and pharmaceuticals benefit the costs of health. If the investment is too large it also means that the cure was large, so it turns out to be a well-invested investment (D-3 – Hospital manager).

However, in the opinion of the group of health sector business managers, there should indeed be a risk-sharing by ensuring that the

(...) parties involved, or providers (hospitals / health centers), payers (state, insurance, sub-systems) or suppliers (medicines, medical devices, and diagnostics) should agree on the criteria they will measure in order for the negotiation to be based on the success or failure of these criteria (E-2 – Health sector business manager).

agreeing to this method of payment

(...) in a win-win perspective (E-2 – Health sector business manager).

and being aware that

(...) the definition of the price in health will be made in the future by evaluating the patient's results from their actual use (E-2 – Health sector business manager).

which will allow or contribute to the

(...) sustainability of health in all its aspects (E-1 – Health sector business manager).

Health care technologies

In the item of health care technologies, emphasis will be given to the practice of monitoring using a Health Technology Assessment System (SiNATS) to assist decision making in the acquisition of medical technology and medicines. Directly linked to risk-taking, it is also meaningful to gauge the opinion of hospital managers as well as health sector business managers. Thus, all the interviewees have a positive opinion of the system, and it is agreed that the

(...) use of new technologies should enhance the quality of services (D-1 – Hospital manager)

so they consider it advantageous to

(...) use a system to evaluate health technologies (D-3 – Hospital manager)

supporting the

(...) decision on the use and financing of health technologies, including medicines and medical devices (D-1 – Hospital manager).

They therefore regard as

(...) extremely important the use of SiNATS (D-2 – Hospital manager)

being a management support tool that allows

(...) an evaluation of the cost-effectiveness throughout the life cycle of medical technologies, reflecting their price and use in function of their actual performance, and not just before the market entry (D-2 – Hospital manager).

and, in this way,

(...) being a great aid in the moment of acquisition / choice (D-3 – Hospital manager).

They also point out that it is based

(...) not only on the quality, safety and efficacy criteria required of all medicines, but also on criteria of efficiency and effectiveness in order to optimize the use of available resources (D-1 – Hospital manager).

being that, according to the opinion of the group of hospital managers,

(...) SiNATS will become fundamental for the health sector in Portugal (D-3 – Hospital manager).

Incentives

Being intrinsically associated with the practice of monitoring true health care outcomes (creating value for patients / quality) rather than in quantities, and since Porter through this new approach / concept also addresses the incentives to health professionals, we sought to obtain the opinion based on the experience on the use of incentives by the various groups of stakeholders. After analyzing the interviews, it was possible to infer that this is a less consensual topic, even if there are several dissonant opinions in the same group of interviewees, so we will choose to refer the results of the analysis in a more individualized way. It should be noted, however, that even those interviewees who agree to the measure, safeguard the fact that they agree only when the analysis is qualitative rather than quantitative. Thus, among the interviews that refer to agree with the measure are members of the nurses' group who say that the measure may be beneficial

(...) in order to create healthy competition among health professionals, but only if they are considered as "outcomes", the quality of services / treatments to patients and not the quantity of services / treatments provided (A-2 – Nurse).

as well as one of the hospital managers who also mentions the issue of healthy competition among health professionals, arguing that

(...) as the incentives will be based on results the main beneficiaries will be the users, because they will have access to services / treatments with higher quality (D-2 – Hospital manager).

and that it may not

(...) be considered as an extra cost since consequently the treatments will be more effective and there will be greater satisfaction of the users and also of the health professionals themselves and all this will lead to a reduction of costs (D-2 – Hospital manager).

CONCLUSIONS

This study was created and developed with the purpose of reflecting on the theme 'value based health care' in Portugal in order to present a current situation on this new approach in Health. It also serves

to raise awareness of several types of stakeholders in the health sector and as future support for value-based health care projects, analyzes and studies. It also allows us to identify some precedent and necessary steps for the future applicability of value-based health care. Through the interviews carried out, it is possible to identify the presence of some indicators of this change in health mindset, such as the notion of value presented by the interviewees, the agreement about the importance of monitoring the results, the receptivity regarding the standardization of the processes and the method of risk sharing, but there are still some doubts regarding some of these sub-concepts. Regarding the applicability and implementation of 'value based health care' in Portugal, through the research conducted, several points were found that demonstrate an attempt to move towards this change. Examples are the creation of monitoring systems such as SiNATS and the national health assessment system (SINAS), as well as the recent partnerships created by private and public hospitals with the International Consortium for Health Outcome Measurement (ICHOM) for the implementation of pilot projects in Portugal. The use of risk-sharing payments, as in the case of the chronic Hepatitis C drug, is another example of this. Nevertheless, considering all the information gathered, we can conclude that we are still a little distant from its implementation, but that in the coming years will be a reality in health in Portugal.

As suggestions during the preparation and finalization of this project it is recommended to carry out more pilot projects of 'value-based health care' and to perform a critical analysis of the results obtained in order to generate more scientific knowledge about this recent theme. In addition, health professionals should be better informed on the subject and their development in national and international terms, which can be done through training and conferences. As results monitoring is a key factor in 'value-based health care', as mentioned by the respondents and a precedent and central step in their implementation, SiNATS is a major step forward in the path towards value-based health care and therefore it should gain more value and importance in order to open the way and sustain the implementation of the new approach in health. In addition, it is estimated that the monitoring of results will be an important tool for health professionals to create, access and share knowledge, as well as for managers as a tool to assist management.

The main limitation found in this study was the lack of knowledge on the subject by some of the interviewees, and it was verified that this new approach is still unknown and even associated by doctors only at financial costs. Being a recent theme, the existence of previous bibliography is also relatively scarce. In addition, the fact that the pilot projects already developed in this area are recent, make the long-term real impact analysis of the implementation of this value-based health care approach still theoretical.

Taking into account the know-how of what is currently being done in "Value Based Health" internationally and in the opinion of some of the main health stakeholders in Portugal, the application of financial incentives to health professionals and results-based hospital financing (based on value creation rather than quantity) should be conducted within healthy competition. With regard to the standardization of medical treatments, it is expected that this will reduce costs, waiting times, exclude unnecessary exams / treatments, reduce the use of unnecessary drugs and supplies, and allow a more efficient use of medical equipment and time spent by health professionals, without prejudice to the quality of services and treatments provided to patients. As far as risk sharing is concerned, the price of medicines and medical technologies is expected to be more realistic and fair, with greater ease of financing and payment for real results obtained in their daily use, allowing the monitoring of innovations and facilitating the introduction of treatments and diagnostic methods more quickly. Thus, with a possible application, implementation and development of 'value-based health care' in Portugal, it is expected that greater satisfaction, quality and equity will be achieved for patients as well as for health professionals.

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AGE DIFFERENTIATION IN TRANSPORT CHOICES IN INDUSTRIAL URBAN AGGLOMERATION

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ABSTRACT

The purpose of the study is to identify the transportation preference in various age groups of people living in industrialized areas. To conduct the study, students and teaching staff were surveyed to establish their behavior when faced with the need to make additional transport payments. The main assumption is the availability of public transport services within a walking distance. Drawing upon the results of the survey, the authors assess the preparedness of students to bear extra transportation costs or to opt for public transport. The authors also look at variations in the preparedness of different age groups of people to use privately owned cars or public transport service when additional transport-related charges are introduced. The authors prove that price has a much bigger influence than age on the consumer's choice of the means of transport. The authors also consider the variability in the preparedness of various age groups of urban residents to voluntarily additional transport-related charges. A conclusion is made that younger motorists are more law abiding and willing to pay additional transport charges such as parking fees, while middle-aged persons are less inclined to voluntarily pay for parking. The authors also estimate the variability in the preparedness of various age groups to embrace a distance-based congestion charge. A conclusion is drawn that there is little support among the public for such a fee. At the same time, middle-aged motorists are more included to pay the congestion charge, while elderly motorists are much less supportive of the fee.

Keywords: behavioral reactions; age differentiation; public transport; private transport.

1 RELEVANCE OF RESEARCH

In order to improve the quality of living in contemporary urban agglomerations, it is essential to nurture rational transportation preferences in city dwellers. The future look of urban agglomerations and the quality of living there will depend on how the problem is addressed.

Cities that encourage private car use have to expand their road networks at an accelerated pace. In densely built-up areas, this inevitably results in changes to the land structure. Roads gobble up lands that were originally designated for other purposes, primarily leisure: parks, boulevards etc. When the throughput capacity of roads increases, private car use intensifies, too. As a result, people find it even more appealing to use motor vehicles, the number of car rides grows, congestion worsens again, and the need arises to further expand the road network. The situation spiraled out of control in the majority of US cities in the second half of the 20th century.

Cities that focus on developing public transport have achieved drastically different results. Many urban agglomerations in Europe connected all means of public transport into a single network, placing emphasis on rail transport, and managed to tip the balance of consumer choices towards public transport. Along with that, various restrictions were imposed on private car use. Such cities have eventually created an environment that is comfortable for city dwellers as well as for tourists.

Transportation policy in the majority of Russian urban agglomerations is yet to be formed, so the problem of setting the right priorities for transportation policy and transport preferences of the upcoming generation is extremely important to Russia.

By transport preferences we mean that a certain group within the population gives priority to a certain means of transport or considers it better than other transportation alternatives.

In urban agglomerations, people choose different means of transport because the modern urban environment generates a wide range of options. In general, urbanites choose between public transport and private motor vehicles. There is also a variety of public transport modes with different ecological characteristics; private transport can vary in terms of energy consumption (bicycle, automobile).

The importance to study the transport behavior of people of different ages who live in urban agglomerations arises from the demand for transportation services among urbanites of all ages. Such demand is not universal. The authors' hypothesis is that different age groups of city dwellers develop a preference for different modes of transport.

The hypothesis will be tested in a study of an industrial agglomeration that has a number of specific features. In such urban agglomerations, tourist flows that generate additional demand for public transport are insignificant. As a rule, such cities boast high levels of employment rate, so their idle population only makes a minimum number of rides. A fairly high level of personal income enables people to consciously choose their mode of transport. In such agglomerations, public transport and privately owned cars are most commonly used for trips to work. At the same time, industrial agglomerations usually have a well-developed public transportation system that is popular with passengers.

The purpose of the study is to identify the transportation preference in various age groups of people living in industrialized areas.

2 LITERATURE REVIEW

Pioneering studies of urban transport systems amid rapidly growing car ownership were conducted by Wardrop (Wardrop, 1952) and Hollatz (Hollatz and Tamms, 1965). Wardrop studied an equilibrium distribution of public and private transport flows within a section of a road network. The point of equilibrium was determined by comparing total disutility (total costs) of all travellers. Wardrop proved that when each road user chooses their preferred means of transport, this choice is not socially optimal. It is necessary to implement incentives encouraging the use of public transport. At the same time, it is necessary to adopt measures to discourage the use of private transport. Hollatz and Tamms showed that high concentrations of cars in a city not only lead to lower efficiency of the entire transport system of the city, but generally decreases the quality of life and safety for the entire urban community.

Studies that were conducted in many countries in the 1960s (Buchanan, 1964; Fitch, 1964) showed that the use of cars in cities was associated with benefits as well as problems. The scholars already started to advocate the priority of public transport.

Weyrich proved that car travel fosters spatial segregation of activities and the segregation of residential areas. High-quality public transportation usually contributes to mixed land uses, stimulating the creation of major activity centers and more diversified residential developments. The strong bias toward cars over all other modes leads to separated rather than diversified land use (Weyrich and William, 1996).

Stanger researched the possibility of using public transport for serving wealthier groups of society. He studied the efficiency of rail systems such as BART (Bay Area Rapid Transit in San Francisco), the Washington Metro and METROLINK in Los-Angeles. The systems predominantly serve wealthy suburbs. Stanger studied the structure of commuter flows and proved that high-quality transit systems with reasonable fares can be an attractive option for various social and ethnic groups (Stanger *et al.*, 1995).

A study by Newman and Kenworthy covered the experience of various cities across the globe that indicated that economically strong, socially healthy and livable cities boast intermodal transit systems that incorporate extended and efficient public transport systems. The systems provide a good alternative to car travel (Newman and Kenworthy, 1989).

Vuchic argued that two basic elements needed to be identified with regard to car use in the urban environment. The first one is a set of measures aimed at improving the capacity of the existing road network in coordination with available parking facilities. The second basic element implies that restrictions should be imposed on the intensity of car use in order to keep a balance between the demand for and the supply of road capacity and, consequently to prevent congestion. Managing parking demand by means of restricting parking supply and charging for parking is the most effective policy. Another highly effective demand management measure is the introduction of a fee for using certain sections of the road network in the city. Initially the measure was very unpopular, but became politically acceptable as the community realized that they were faced with a simple alternative: pay and travel in acceptable conditions, or don't pay and waste hours in traffic jams (Vuchic, 1981).

If the motorist does not have to pay for parking (which is the case in most towns of Russia), his or her car-related charges usually make up only 10 to 15 percent of the total cost of a car trip. This makes car travel extremely cheap from the point of view of most car owners. The factor makes a huge difference, turning the car into the priority mode of transport in the city. As a result, the low level of fixed and variable car related charges makes a significant contribution to congestion and the paralysis that regularly strikes the road system in most Russian cities (Mayburov and Leontyeva, 2016, Leontyeva and Mayburov, 2016).

Studies begin to be carried out in Russia into people's transportation preferences (Romanova, 2017). Earlier, the authors researched transport behavior by gender (Mayburov and Leontyeva, 2017). The authors are not aware of any studies that looked at transport preferences in different age groups.

3 MATERIALS AND METHODS

The proposed research method is a survey of students and faculty to learn about their transport behavior when faced with the choice between private vehicles and public transport for daily pendulum migration from home to work (school) and back.

The survey was conducted among students and faculty of Ural Federal University. All of them reside in Yekaterinburg, a major industrial center with a predominance of defense companies, foundries and machine building facilities. The city, therefore, ticks all boxes for being considered a major industrial agglomeration. Yekaterinburg has all means of public transit: a metro, trams, trolleybuses, buses. However, the city has practically no infrastructure for using bicycles as a mode of transport and is too big to be considered walkable.

A total of 200 students and faculty members were interviewed. The respondents were grouped by age. To make the sample more representative, its structure was designed as a snapshot of the Yekaterinburg population in terms of age (Table 1).

Total population, %	100	Respondents	200 pers.	100 %
incl. age groups:		age		
0-19	21.6	under 19	42	21
20 – 34	22.5	20 – 34	44	22
35 – 49	20.9	35 – 49	42	21
50 – 64	21.1	50 – 64	42	21
Over 65	13.9	over 65	30	15

Table 1. *Age structure of the sample and Yekaterinburg population*

Additionally, the selected respondents had to hold a driving license and own a car (or their family had to have one).

The survey was conducted as follows: it stipulated the basic assumptions and variables. The key assumption was that all participants could access public transport within a walking distance.

The survey variables were the options of using public transport or travelling by car, and different costs incurred by car owners in the city environment.

4 ANALYSIS OF TRANSPORT PREFERENCES

A series of surveys yielded meaningful results that have been structures according to the survey variables and the age of the respondents. Table 2 presents the results of the survey on the cost of travel.

№	Age of respondent	Percentage of those who opt for public transit when the ratio of the cost of trips by public transport and by car is as follows (in equivalent units)		
		1,0 : 1,0	1,0 : 1,5	1,0 : 2,0
1	under 19	9	35	70
2	20 – 34	7	33	68
3	35 – 49	8	29	65
4	50 – 64	8	28	69
5	over 65	16	45	86

Table 2. Transport mode of choice depending on the ratio of the cost of trips by car and by public transport

The survey found that when the cost of travelling by car and by public transport is the same, the participants in practically all age groups opt for private cars. Only 10% of urban dwellers prefer public transport.

Things turn around only when there is a disparity between the cost of a car ride and the cost of a public transport ride. For example, when a car trip costs 50% more than a public transport ride, around 34% of urbanites declare their preparedness to use public transit. If travelling by car costs twice as much as a public transport ride, around 72% of city dwellers are prepared to go to work by public transport.

One could see that age does not have as much influence on city dwellers' transport choices as the cost of travel. Two age groups – those under 19 and over 65 – are more inclined to use public transport. Those over 65 prefer to use public transport due to a habit dating back to the time when a car was a luxury and everyone used public transport.

The responses of students under the age of 19 are particularly interesting. They are much more inclined to use public transport than middle-aged respondents. This can be attributed to the fact that young people have already embraced the idea of public transport being the main means of transportation in megalopolises in the future.

The conducted survey suggesting different ratios of the cost of car rides and trips by public transport delivers a conclusion that the cost ratio has a lot more influence on consumers' decision when choosing a means of transport than age.

No	Age of respondents	Would prefer public transport, %	Would continue to use car and evade parking fee, %	Ready to pay daily car park fee, %
1	under 19	35	11	54
2	20 – 34	33	16	51
3	35 – 49	29	22	49
4	50 – 64	28	24	48
5	over 65	45	17	38

Table 3. Travel reactions following introduction of parking fee

In order to find out which transport fee hikes city dwellers are ready to tolerate, the authors asked the respondents about their attitude to paid parking. At present, there are paid parking zones only in downtown Yekaterinburg. Parking is free near the university, which creates excessive demand for available parking space and makes it difficult to park a car during the daytime. The authors asked the respondents whether a compulsory parking fee should be introduced during daylight hours. It was

suggested that the respondents view the parking fee as an additional cost that has to be paid out of their pocket. The fee was set to a size that made the cost of a car trip 50% higher than a public transport ride. Table 3 presents the results of the survey on parking fee.

The survey found that age has a much bigger influence on consumers' preparedness to use paid car parks during the daytime. City dwellers under 19 years of age proved the most prepared (54%) to pay a parking charge, but the rate declines through other age groups, reaching the minimum value of 38% in those over 65. The factor of age has a more complex impact on motorists' willingness to use paid car parks without paying the fee. Between 22 and 24% of middle-aged motorists are ready to take the risk and use a car park without paying for it. Younger and more mature people are less inclined to such risk-taking behavior.

Consequently, it is possible to conclude that the survey of people's preparedness to pay a daily parking charge indicates that younger motorists are more inclined to bear the additional cost of daily parking.

The subject of the biggest interest is the results of an experiment with the variable "readiness to pay congestion charge". This is due to the fact that not a single Russian town has implemented a congestion charge yet, whereas paid parking has been embraced by a substantial number of Russian towns.

If the subjects opted for using their cars, they were to pay a charge for using roads in the center of the city. The amount of the charge was designed to make the total price of a car trip 100 percent higher than the price paid for a public transport ride. The terms of the experiment stipulated that the charge was unavoidable and would be debited to their card accounts once they enter the charge zone.

No	Age	Would opt for public transport, %	Would use carpooling or other ridesharing options, %	Ready to pay congestion charge, %
1	under 19	70	11	19
2	20 – 34	68	10	22
3	35 – 49	65	8	27
4	50 – 64	69	7	24
5	over 65	86	3	11

Table 4. Travel reactions to congestion charge

The results of the survey indicate that middle-aged drivers are more inclined to pay the congestion charge (27%), whereas older motorists have far less support for the charge (11%). Younger people

proved more likely to change their transport preferences, opting for various forms of carpooling. The preparedness to take advantage of carpooling declines in older age groups – from 11 to 3%.

In general, one could both the upside and downside of such travel reactions to the introduction of a congestion charge. On the one hand, urban dwellers do not have much support for the measure and protests could erupt if a congestion charge is introduced. In such a case it is advisable to launch a campaign promoting transport alternatives and demonstrating how the measure could reduce congestion in the city. The upside is the fact that motorists appear to be ready to switch over to public transport.

5 CONCLUSION

Urban transport policy that uses fiscal instruments for reducing private car use will simultaneously improve the efficiency of privately owned and public transport.

The findings of a survey assessing motorists' reaction to various ratios of the cost of travel by car and by public transport makes it possible to infer that the cost ratio is far more important a factor than age when the consumer decides whether to travel by car or by public transport. Consequently, in order to tip the balance towards public transport, it is necessary to increase the cost disparity between privately-owned vehicles and private transport in case of otherwise identical trips.

The results of a survey looking at motorists' preparedness to pay a daily parking charge enable one to conclude that younger motorists are more inclined to bear the additional parking cost during the daylight hours. The survey also shows that middle-aged motorists are more inclined to pay a congestion charge, whereas more mature motorists are a lot less supportive of such a fee.

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ECONOMIC AND FINANCIAL BALANCE OF ITALIAN TANNING MANUFACTURERS DURING THE CRISIS (2007-2015)*

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ABSTRACT

This work focuses on the situation of tanning manufacturers in Italy. It aims to analyse their financial structure, in the period before, during and after the crisis (2007-2015), in relation to financial ratios and margins trend. The study focuses on three research questions: what is the actual situation and which trend there has been in the last decade in Italy? What was the effect of the international crisis on the financial structure of companies in the sector? What is the actual in the various Italian geographic areas?

To these aims and starting from AIDA data, the study carries out a trend analysis. The financial structure is assessed using ratios (Leverage) and fixed asset to equity capital margin (Margin of treasury, Net working capital and Fixed asset to equity capital margin).

From the quantitative study it is evident that the economic crisis did not affect significantly on the performance of the considered index. The sector is considerably indebted, in a national framework characterized by medium-sized companies, family-run with low capitalization, also due to a modest capital market. However, the risk capital seems to be able to face the crisis. In the face of significant treasury losses, the management of net working capital is better due to the high value of the stock.

The production is mainly concentrated in the northern and central regions of Italy. The territorial disaggregated analysis shows relatively similar trends in the three macro-areas of the Country, with better performances for the companies in Central Italy. The study will have to be to further expand it through the analyses of the income evolution in the sector over the considered period.

Keywords: Tanning Manufacturers, Crisis, Performance, Ratio

* This paper is the result of a collaborative work. However, it is possible to attribute to Maria Fulvia Arena: Tanning Production in Italy, Research Methodology, and Results and Discussion. The other sections are of Guido Migliaccio.

INTRODUCTION

The recent international economic crisis has affected the nations and the industries with different intensities and consequences. It was also an opportunity for scholars to detailed analyses of the causes and possible solutions to propose to the globalized economic system and every company. This study focuses on the tanning industry trend in Italy during the economic crisis. It represents a useful case study for its global dimension and for the verification of its relations with the economic crisis causes.

However, the leather production raises also the issue of environmental pollution, because of the problems of waste and recycling (Autori Vari, 1992; Bufalo *et al.*, 2018; Kumar *et al.*, 2014; Dzhanpaizova, 2013; Sunny *et al.*, 2012; and many others, subsequently cited). Sector analysis is useful for both typical purposes, related to the financial statements analysis, and for the ecological and social implications, due to environmental impact.

This research answers two questions focused on financial and economic dynamics:

RQ1: What is the current situation and what did the trend in the last decade?

RQ2: What was the effect of international crisis on firms' financial structure?

RQ3: What is the actual in the various Italian geographic areas? This is because, in Italy, there are different economic and social situations between North, Centre and South.

In the future, the research must be extended to the profitability aspects.

In order to answer to these research questions, the study carries a quantitative analysis based on the financial statements of a sample of companies for nine consecutive years. By analysing the time trend of some capital margins and ratios, a first view on industry trend.

The study, after explaining some evidences from international literature revue, shows some data on the tanning industry both in Italy and in the world. After, the empirical research methodology is described, which uses hundreds of financial statements of companies operating in the sector, broken down by geographical area (North, Central and Southern Italy), also to check if the indicator trends are homogeneous throughout the national territory. Below is an illustration of trends in some indices and margins.

Finally, we presented conclusions and possible future in order to make clear open questions.

LITERATURE REVIEW

The international literature focuses mainly on the technological processes of the tanning which, in the last years, underwent a significant evolution in relation to the outcomes of the applied researches of the sector.

Also the economic-managerial scientific production has also favoured the evaluation of the technical process of production (Ruggeri and Guerriero, 1997), noting (Corbetta and D'Alessandro, 2008) and evaluating the cost (Cavaliere and Cavaliere, 2000) and, mainly, presenting numerous considerations related to the environmental risks which are the result of the disposal of the processing residuals (Autori Vari, 1992). So the new work of Bufalo *et al.* (2018) identifies an innovative process, based on the principles of minimal wrecking and maximum separation of solid waste, to reduce environmental impact of these firms. Other works are also characterized by economic evaluation connected to the analyses of the technological processes and their impact on the environment. Kumar *et al.* (2014), for instance, address the problem of the work in companies which could harm both the health of employees and the surrounding environment. Similar issues are evident in the studies of: Dzhanpaizova (2013) concerning the requirement of assurance of quality and environmental safety of leather products (in relation to Kazakhstan); of Sunny *et al.* (2012) strongly focused on the environment security (Bangladesh case); of Raffaelli *et al.* (2000) and of Raffaelli (1999), which urge the use in Croatia of raw materials for the leather, despite the effort of protecting the environment.

Instead, Merete Knutsen (2000) compares the dyestuff and tanning industries in order to the environmental practice in their commodity chain. Finally, with regard to the managerial works on environmental issues it is worth to mention Dixit *et al.* (2005) which clearly underline the dangerous for people and environment of leather production, because of toxic materials and waste.

Economic evaluations are also referred to researches connected to a particular phase of the productive process. Chung *et al.* (2013), for instance, presented a study, that selects and evaluates the best available technology for wastewater facilities and the operations of finishing. The specific topic of the wastewater has also been discussed in the work of Khanna (1984), when the technologies were not the current ones and the ecological sensitivity was certainly less. Regarding the theme of the recovery and reuse of chromium from wastewater, that is derived by chromium tanning, see the work of Kanagaraj *et al.* (2008). For Italy, it is worth mentioning the work of Bonomo (2008).

Environmental issues are now part of the broader topic of sustainability (Śmiechowski and Lament, 2017; Kanagaraj *et al.*, 2015; Chow, 2010).

Therefore, in the international literature it is evident the lack of willingness of evaluating the capital/asset balance of the tanning industries. There are many studies based on budget analysis that

are however related to particular forms of society or to other sectors (for example: Zeitun and Saleh, 2015; Zanni et al., 2008; Pertusa-Ortega et al., 2008; Fusco and Migliaccio, 2015, 2016¹, 2016², doi: 10.1504/IJBG.2019.10011867, doi: 10.1108/EMJB-02-2016-0002, Iovino and Migliaccio doi: 10.1504/IJBG.2019.10011698) or to the economic and financial causes of the recent crisis (citing only a few: Iannuzzi and Berardi, 2010; Kirkulak and Erdem, 2014; Mattarocci and Siligardos, 2015; Britzelmaier et al. ; 2013; Vergos et al., 2010). However, nothing strictly related to the tanning industries at this particular moment in the international economy. This study, which needs further extension, aims at filling this gap.

The quantitative research, that is described later, focuses on Italy where the tanning industry developed mainly in some districts (Floridia *et al.*, 1994; Gervasio, 2012), mostly in Tuscany (Batazzi *et al.*, 2005; Foggi, 1987; Gensini, 2000) and Irpinia (D'Alessio, 1994; Pirolo, 2011) Here we also witnessed positive consortium practices (Vallini *et al.*, 2007). After decades of undoubted success (Guolo, 2007), recent years have been witnessing a complete restructuring in the sector. This has also been characterized by a process of delocalization in order to face the recent global crisis. All this had the consequence of transforming dynamic areas into obsolete industrial areas (Foggi, 1985).

However, the Italian leather represents an internationally excellent model of sustainability, quality and innovation (Napolitano, 2017).

TANNING PRODUCTION IN ITALY

The tanning industry recycles and ennobles the raw hides obtained through the slaughtering process, which obviously are waste from the meat processing industry. The final product is the leather, which is subsequently used for the production of a wide range of leather products (Cioli and Passeri, 1995). The Italian tanning industry is considered as of the most excellent expression of the “made in Italy”, as well as industry’s world leader. The excellence of the Italian production is mainly reflected in the quality and the ongoing innovative capacity (Batazzi *et al.*, 2005).

In 2015 the value of the production amounted to EUR 5.207 millions per 124 millions square meters and 26 thousand tonnes of leather soles (UNIC, 2016²). In the same year, the Italian tanning industry achieved 19% of the global tanning production value and, in particular, at the European level achieved 65% of the total production value. The Italian tanning industry is characterized by a strong export vocation: in the international trade about 25% of finished leather is Italian made. In the European context, the Italian contribution to the exports to extra EU regions is about 70% of the total.

Considering the limitedness of the domestic farming, the import of raw materials is particularly important, since the foreign sourcing – originating from 119 Countries – covers almost the whole of the

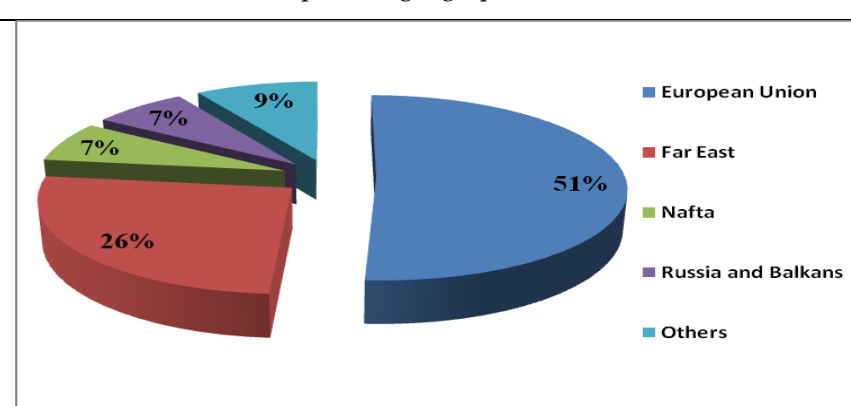
industry needs: in the international trade 17% of raw hides and 22% of semi-finished leather have the Italian tanning industry as final destination (UNIC, 2016³). This industry works mainly hides of bovine (79%), because of the great global availability. Other hides are of sheep and goatskins (20%) and swines, deers and reptiles, that amount for less than 1%.

Almost half of the nationally produced leathers is sold to the footwear manufacturers (42%). Other clients are the leather sector (25%), furniture industry (16%), car interiors (10%) and clothing (5%). The residual 2% is assigned to marginal usages. The export of tanned hides - to 122 Countries- is central to survive and develop this sector: it amounts to more than three quarter of the annual total revenue. The European Union is the principal customer, that absorbs about half of the overall export, but from 1995 the principal non-EU destination is China.

It is thus confirmed a substantial stability in the structure of the sector, which counts 17.824 employees in 1.243 firms, with an average of 14 employees for each firms.

The companies are mainly concentrated in four local production districts, different from each other for both productive typology and destination. In Europe the Italian tanning industry owns 78% of the tanneries and 52% of employees (UNIC, 2016¹).

Table 1: Tanned hides export for geographical areas



Source: UNIC (2016²)

RESEARCH METHODOLOGY

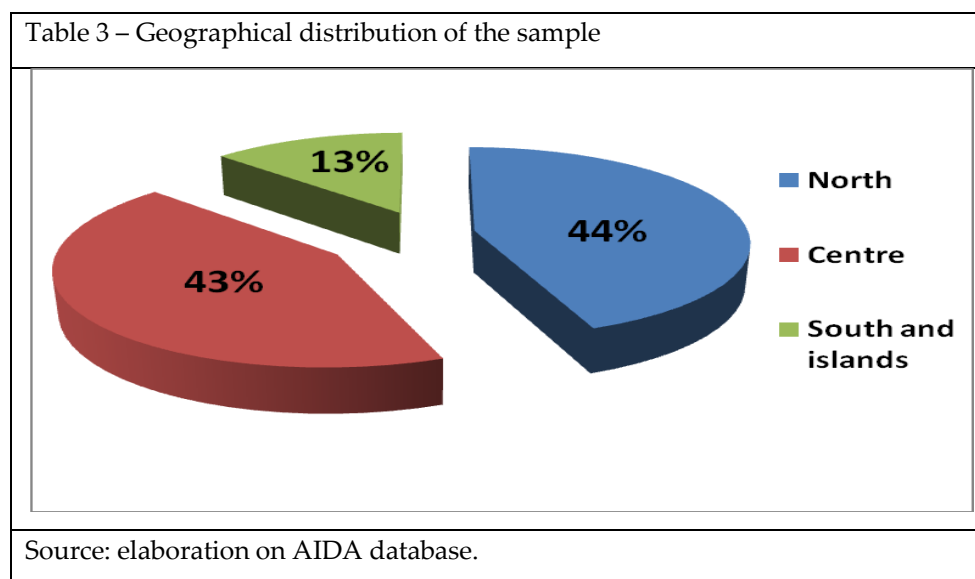
Data collection and sample characteristics

This study focuses on the economic and financial dynamics of the Italian tanning industry during the years 2007-2015 – namely before, during and after the 2008 global crisis – with the scope to highlight the effects of the recession on the industry. In order to carry on this study we have analyzed the indicators available on the AIDA database from the section C – “Manufacturing activity”. This

corresponds to the code Ateco 2007 15.11, namely “Preparation and tanning of leather, preparation and dyeing of furs” (table 2).

Table 2 – Size of the sample and geographical distribution				
	Sample size	Geographical Areas		
		North	Centre	South and islands
2007	499	221	224	54
2008	532	234	239	59
2009	574	249	257	68
2010	607	266	265	76
2011	637	281	272	84
2012	673	301	279	93
2013	714	313	296	105
2014	732	320	303	109
2015	735	327	305	103
Source: elaboration on AIDA database.				

Over the period concerned the geographical distribution of the sample was averagely: 44% of the industries are located in the North, 43% in the Centre and just 13% in the South and on the islands (table 3).



The data have been analyzed through a quantitative approach, often together with graphic representations of index and margins performances.

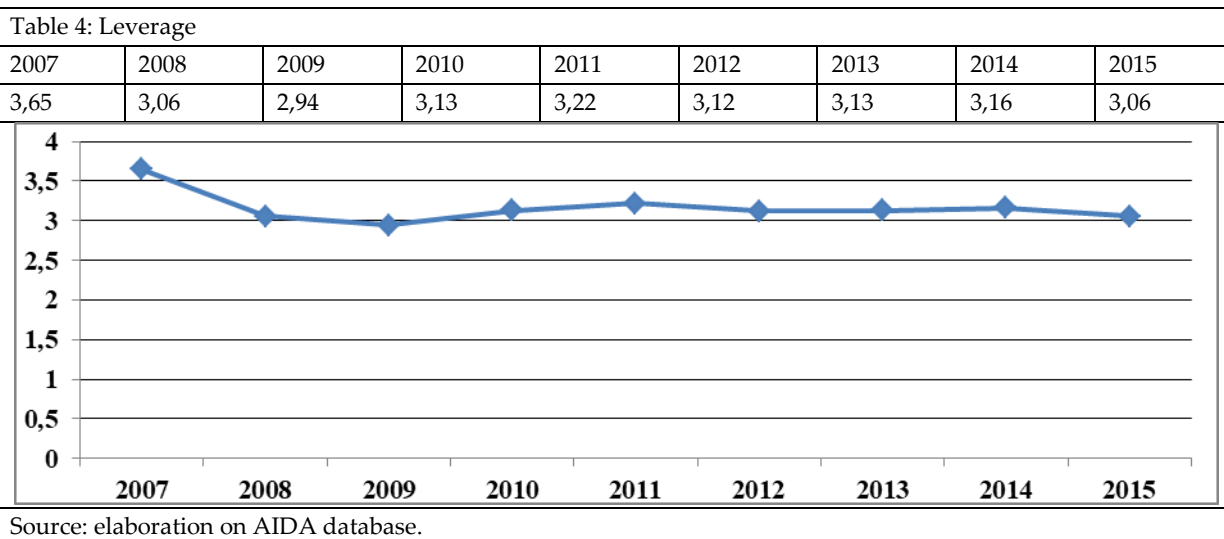
Tables and graphics are described by outlining a possible interpretation of the phenomenon, highlighting in particular the effects on the financial structure and dynamic of the industries.

RESULTS AND DISCUSSION

Trend analysis: Financial and asset analysis of the Country

Indebtedness level

The *Leverage* (Total Assets/Equity) indicates the contribution of the equity to the total company employment (table 4).



In 2007 the industry is characterized by the highest value of the ratio. In the two-year period 2008-09 the values recorded are respectively 3,06 and 2,94, therefore there is decreasing trend, which increases again in 2010. In the following years, the indicator is generally stable. The overall result of the period is a reduction of about 16%.

Despite the crises, there is an overall but slight improvement of the capital solidity. However, the industry has a leverage higher than the optimal value, that means that the financial structure is characterized by significant resources of third parties.

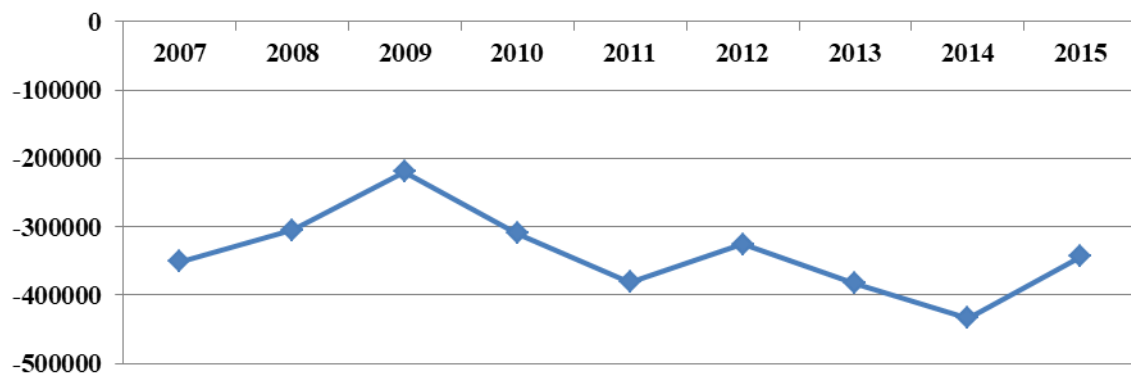
Short- term financial balance

It can be analyzed using the *margin of treasury* and *net working capital*.

a) The *margin of treasury* [(Cash + Short-term receivables) - Current liabilities] shows, in absolute terms, the ability of the company to meet its short-term debts with the current and future resources, that are cash and short-term receivables (table 5).

Table 5: Margin of treasury (in millions of Euros)

2007	2008	2009	2010	2011	2012	2013	2014	2015
-351	-305	-220	-310	-381	-325	-383	-434	-344



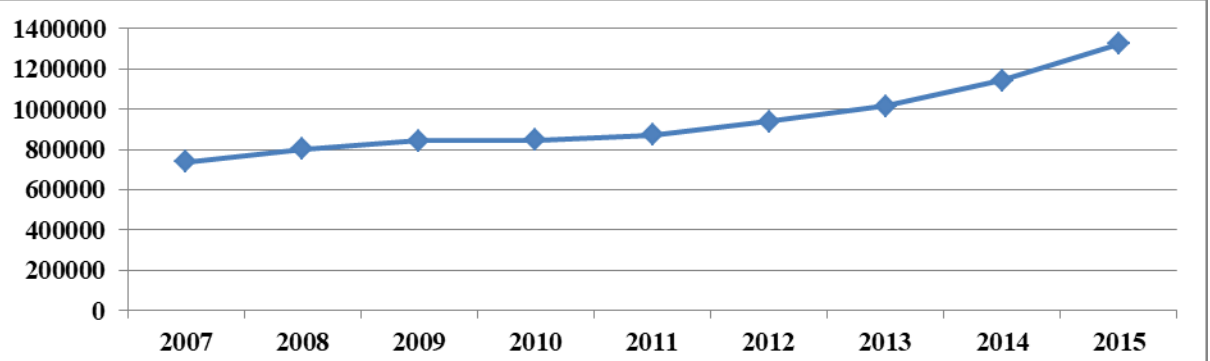
Source: elaboration on AIDA database.

The margin has a fluctuating trend: the negative average margin values also show a situation of financial illiquidity for the companies in the sector. However, these values are not to be attributed to the economic and financial crisis, considering that already in 2007 the margin was negative. The worst results are in 2011 and in the two-year period 2013-2014. Although 2015 is characterized by an improvement in the level of liquidity, the period examined ends with a margin value close to that of 2007.

b) The *net working capital* (Current assets – Short-term debts) expresses, in absolute terms, the coverage of short-term debts with short-term investment, including stock (table 6).

Table 6: Net working capital (in millions of Euros)

2007	2008	2009	2010	2011	2012	2013	2014	2015
734	802	842	848	874	938	1016	1142	1324



Source: elaboration on AIDA database.

The margin has abundantly positive average values, which indicate a good management of working capital.

This proves that Italian tanneries have short-term reserves sufficient to cover all short-term debts, considering the possibility of liquidating the stock.

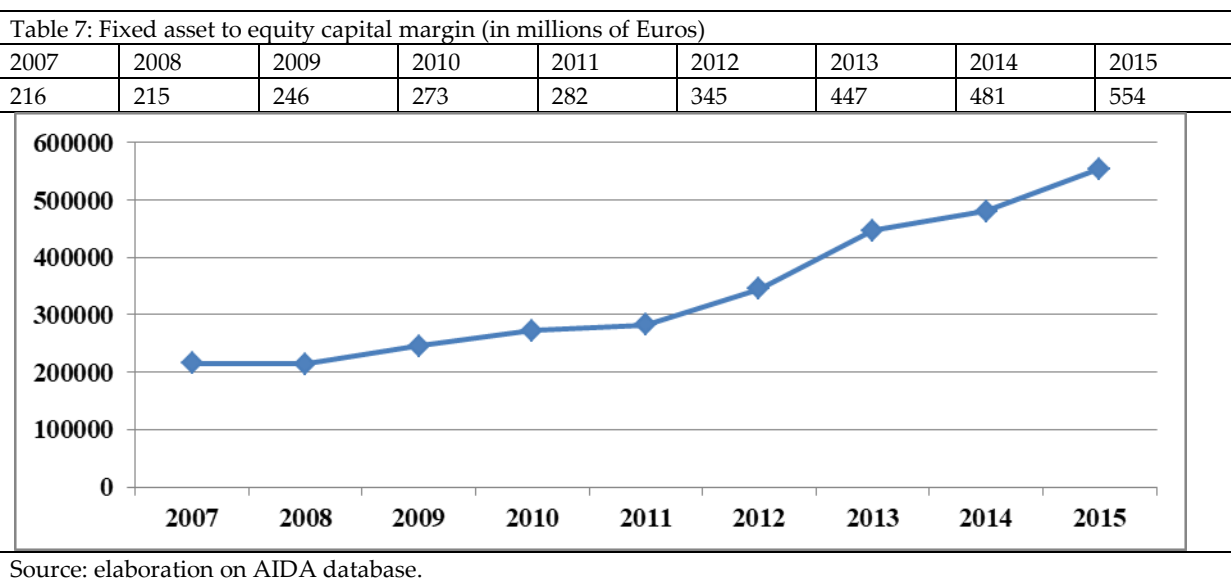
Furthermore, the positive and growing values show that the 2008 crisis had no impact on the performance of the indicator.

This confirms the tendency of Italian tanneries to create a warehouse of semi-finished products, as they can easily be differentiated in the final destination on the basis of specific requests. Therefore, the creation of an intermediate warehouse of semi-finished products represents an intermediate solution between the need to differentiate the product and the need for rapid delivery.

Medium and long-term financial balance

The analysis of capital strength focuses on the *fixed asset to equity capital margin* and on the *financing ratio for non-current assets*.

a) The *fixed asset to equity capital margin* (Equity – Net fixed assets) expresses, in absolute value, the ability of equity capital to finance non-current assets (table 7).



The margin has more than positive values: this indicates that equity does not only finance all the fixed assets, but also a part of the working capital, probably the tied stock.

Therefore, the increasing and positive values of the margin justify a very low level of long-term indebtedness. In particular, the margin remains stable in the first two years, and then increased in the following years.

However, only from 2012 growth rates become significant. In 2013, the margin shows a positive variation with respect to the previous year of about 29%. It should be noted, however, that in the tanneries companies the fixed assets account of about 30% of the total value of the assets.

Moreover, since investment in fixed assets is limited, the asset structure of these companies is particularly elastic and allows them to adapt more easily and economically to the different requests of buyers.

It can therefore be said that the companies in the sector enjoy satisfactory levels of capitalization compared to investments in fixed assets, which they managed to maintain despite the period of widespread economic difficulty.

b) The *financing ratio for non-current assets* [(Equity + Long-term debts)/Fixed assets] considers the use of both own funds and third party equity to finance non-current assets (table 8).

Table 8: Financing ratio for non-current assets								
2007	2008	2009	2010	2011	2012	2013	2014	2015
1,82	1,66	1,70	1,66	1,66	1,72	1,78	1,84	1,98

Source: elaboration on AIDA database.

After the decrease recorded in 2008, the index remains basically constant until 2011.

Starting from 2012, the trend is increasing. In 2015 there is a value close to 2, which means that the equity and consolidated liabilities are present for an amount of about double the value of fixed assets.

Furthermore, the trend of the report reflects the trend of the margin previously mentioned. In any case, the average values above 1,5 indicate a good grade of solidity and a balanced structure.

Trend analysis: asset and financial analysis for internal geographical areas

This section analyzes the main economic-financial indicators, which characterize the three main areas of the Country: North, Centre, South and islands, to verify if there are uneven effects of the crisis in relation to the different location of companies in the sector.

Table 9: Leverage for geographical areas									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
North	3,93	3,18	3,06	3,23	3,35	3,24	3,21	3,29	3,21
Centre	3,40	2,95	2,77	3,04	3,05	2,95	2,96	2,94	2,81
South/islands	3,21	2,86	2,93	2,98	3,16	3,21	3,40	3,41	3,29

Source: elaboration on AIDA database.

The leverage, whose values are shown in table 9, has a decreasing trend both in the North and in the Centre.

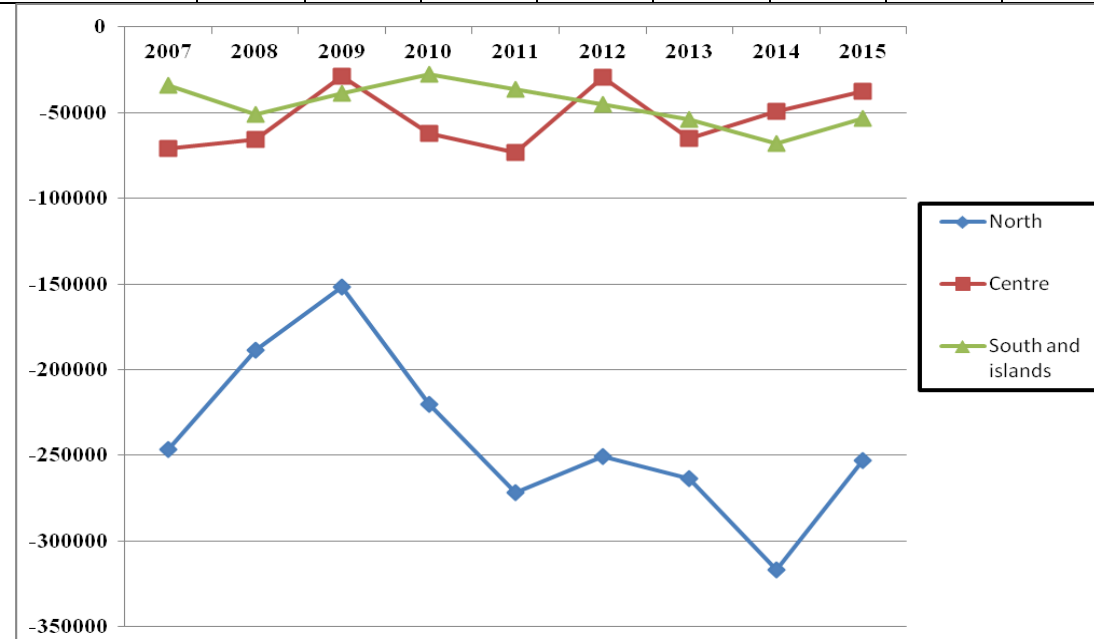
In both cases, the reduction in the debt ratio starts in 2008, but in the following year the lowest values for the period are reached: 3,06 for the Northern companies and 2,77 for the Centre's.

Instead, the Southern tanneries have a different leverage trend: decreasing in 2008, but increasing from the following year until 2014.

In fact, while for the North and the Centre the period ends with an improvement in the level of indebtedness, the Southern companies are experiencing a worsening of this ratio, although very limited.

Table 10: Margin of treasury for geographical areas (in millions of Euros)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
North	-247	-189	-152	-220	-272	-251	-263	-317	-253
Centre	-71	-65	-29	-62	-73	-30	-65	-49	-37
South/islands	-34	-51	-39	-27	-36	-45	-54	-68	-53



Source: elaboration on AIDA database.

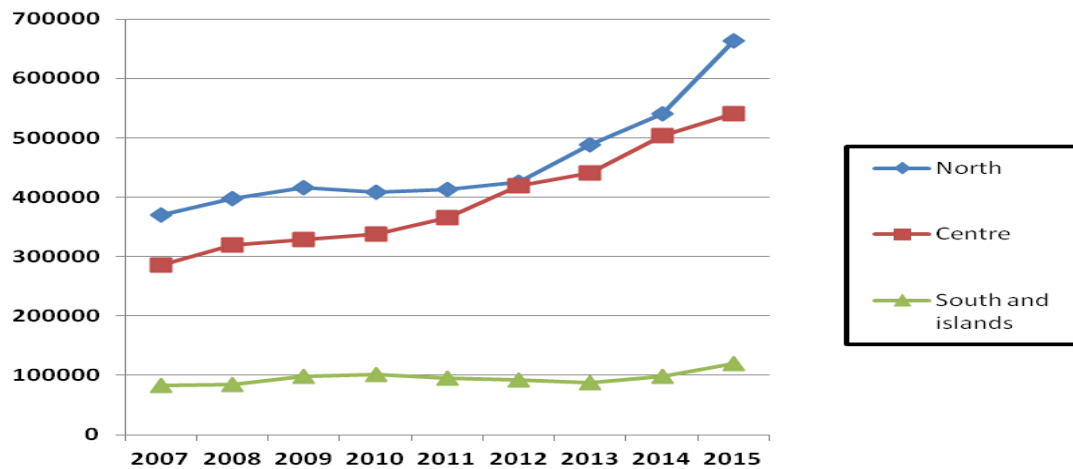
From reading the aggregated data (table 10), it emerges that the margin of treasury of all the companies operating in the sector, regardless of the location, is negative for the whole period examined.

However, a more independent and fluctuating trend characterizes Northern firms, marked by different peaks, but significantly lower than other geographical areas.

A situation of financial illiquidity is confirmed for the companies in the sector.

Table 11: Net working capital for geographical areas (in millions of Euros)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
North	370	398	416	409	413	426	488	540	664
Centre	286	320	328	338	366	420	441	503	540
South/islands	83	85	99	102	95	93	87	98	120

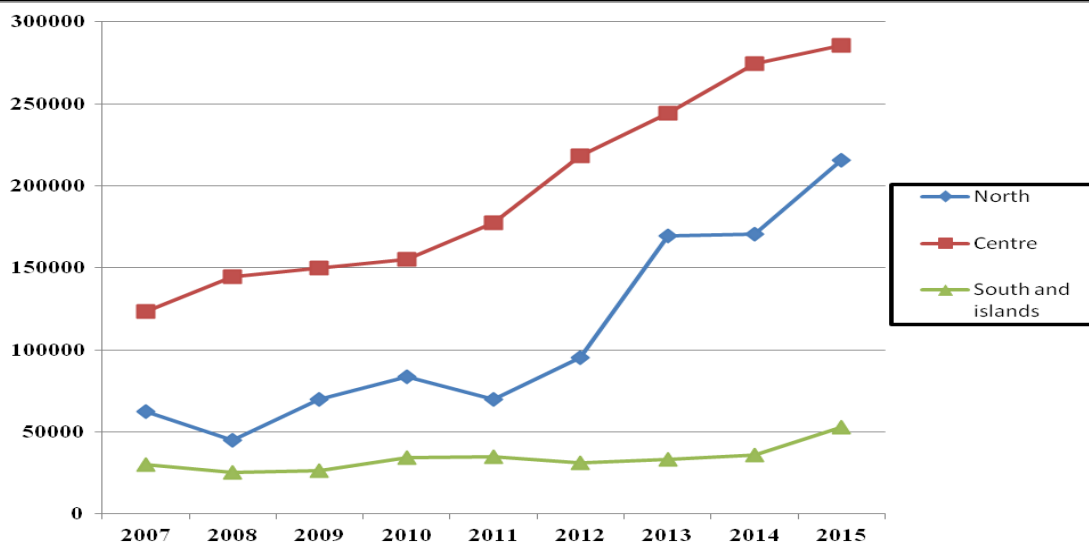


Source: elaboration on AIDA database.

Net working capital shows positive values in all geographical areas, which indicate a good temporal balance between sources and uses. However, Southern firms have lower margin values and their performance does not show significant peaks. Instead, greater growth is associated with companies in the North and Central Italy. In fact, the period examined is characterized by a margin growth of approximately 79% and 89% respectively.

Table 12: Fixed asset to equity capital margin (in millions of Euros)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
North	62	45	70	84	70	95	170	170	216
Centre	123	145	150	155	178	218	244	274	286
South/islands	30	25	27	34	35	31	33	36	53



Source: elaboration on AIDA database.

The table 12 shows that the Southern companies have the lowest margin values, as well as less significant fluctuations. The North has higher average values and with greater fluctuations. The overall result of the period of Northern firms is a 248% growth. However, the best results are associated with companies in Central Italy: these have the highest margins and a trend that is generally characterized by successive periods of growth. In the nine years analyzed, the margin of these companies grew by 132%.

CONCLUSIONS

Despite the recent economic crisis that has involved structural changes of whole economic sectors, Italian tanning industry creates a product appreciated all over the world, which ennobles the “Made in Italy” brand. The data on the international market are encouraging and allow us to hope for positive future developments, if Italian companies are able to consolidate their asset balance, maintaining a constant financial and economic balance.

Most of the economic-managerial studies focuses on the assessment of some phases of the production process or the economic aspects of the age-old ecological problem deriving from the disposal of the residues of tanning techniques. Considering absence of a specialist bibliography on the subject, this study has tried to identify and measure some traditional parameters of quantitative nature and report sources/uses, describing the trend of indicator that synthetically represent the financial and asset balance.

In general, and regardless of the geographical area, the companies are highly indebted. It's evident from the traditional parameters of the relationship between equity and third parties capital. In reality, considering that in general many Italian industries, even if in different sectors, have little capitalization, the judgment can be more lenient. In fact, it is known that domestic production develops mainly in companies of modest size and family runned. Despite several attempts to develop a more articulated capital market, bank and supply indebtedness remains a significant and prevalent source for Italian companies, including tanning companies.

Instead, the typical and exclusive characteristic of the analysis sector is the presence of a significant stock value, that allows a more flexible management of working capital. In the face of an ever-negative margin of treasury, that's independent from the temporal dynamics of the international economic crisis, net working capital is always positive and constantly growing. It is due precisely to the high value of stocks, mainly semi-finished products, which have a positive effect on short-term balances.

Very positive opinion also concerns the medium-long term balance. In fact, the fixed asset to equity capital margin is constantly positive and with increasing values, developing a trend almost parallel to

that of the net working capital. Therefore it covers the technical fixed assets, long-term uses, and finances the most restricted part of the warehouse.

The combined performance of the net working capital of the asset to equity capital margin reduces the negative opinion expressed on the indebtedness index. However, it remains worrying. As mentioned above, it is attenuated by the general financial situation of small and medium-sized Italian companies and by the domestic capital market.

The analysis disaggregated by geographic areas globally confirms the trends described.

First of all, it should be considered that the North and Central Italy almost equally divide 87% of national industrial production, while the South has a very low percentage. The shortage of own risk capital is particularly evident in the North and South; better performance at the Centre, even if the values remain well above the level considered acceptable. Northern firms suffer more than others from cash shortages.

The effect of stock makes the values of net working capital significantly better in companies in the North and Central Italy, distancing those in the South.

The companies in Central Italy have better values also with respect to fixed asset to equity capital margin. This indicator is worse in the South, even if it remains positive.

This analysis must necessarily be supplemented by trends of the main income indices, to establish possible logical connections between financial dynamics and income generation capacity. In fact, while, there does not seem to be a direct connection between the international economic crisis and the performance of asset and financial indices and margins, it is probably that economic crisis has been a negative effect on profitable outcomes.

This study is a part of a larger project, that analyses the effects of the crisis on the economic-financial balance of Italian companies. The results of similar research on cooperatives have already been published (Fusco and Migliaccio, 2015, 2016¹ and 2016²). Next publication of further analysis: Fusco and Migliaccio (doi: 10.1504/IJBG.2019.10011867), Iovino and Migliaccio (DOI: 10.1504/IJBG.2019.10011698), Fusco and Migliaccio (DOI: 10.1108/EMJB-02-2016-0002). Therefore, it is part of a more ambitious project within which it can be appropriately evaluated. We hope that in the future it will be possible to make comparisons between companies and different sectors to identify possible parallel developments.

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BALANCE OF ASSETS OF SOCIAL WELFARE HOME DURING THE CRISIS PERIOD (2007-2015)*

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ABSTRACT

This paper focuses on the capital balance of Social Welfare Home (SWH) as social cooperative form in Italy through the analysis of some capital ratios in the last decade.

The study wants to assess three relevant issues:

RQ1: What is the demographic trend in the world and in Italy?

RQ2: What was the trend of the most relevant capital ratios during the international economic crisis connected to the social welfare home as social cooperative form?

RQ3: What are the possible connections between the demographic trend and the capital balance of a social welfare home?

The social welfare services for elderly are relevant non just for the future of Italy but for all the world countries, taking into account the aging population and the migration phenomenon; the durability of SWH depends on their cost effectiveness that is relevant to ensure a stable social condition for many countries. The sector appears to be relatively undercapitalized with a substantial presence of indebtedness. However, this negative judgment is attenuated considering that risk capital appears quite adequate compared to tangible fixed assets. The treasury situation is not worrying. There are no significant correlations with the trend of the international economic crisis: it seems that the sector has not been affected, at least in the balance of assets, of the problems that have affected so many States.

Keywords: Social Welfare Home; Aging Population; Capital Ratios

INTRODUCTION

The aging population is a relevant phenomenon in Italy, for many other western countries. It is an achievement of medical science, sanitary conditions and, in general it is an improvement related to the

* The paper is the result of a collaborative work. However it is possible to attribute to Francesco Losco: Social and Demographic Situation in Italy and in the World (Notes), Social Welfare Home in Italy, Research Methodology, and Results and Discussion. The other sections are of Guido Migliaccio.

standard of living connected to social and economic development but it is also source of many problems. Taking care of the elderly has an impact on the family productivity. If it is demanded to an efficient structure, it is possible for the families to continue their working routine with no damages for themselves.

The placement of dependent persons in a dedicated structure becomes urgent especially when the elderly constantly need medical care. This phenomenon creates some ethical issues especially when this solution looks like an ungrateful exclusion of people that have already ended the working life.

There are obvious psychological problems connected to this choice and this creates effects also on the social life.

These structures can become a resource for community if they are managed respecting people that suffer from evident disability linked to seniority.

These structures have to respect the traditional canons of economy, efficiency and effectiveness, even if they have an agreement with public welfare system that, especially in Italy, are characterized by a growing deficit.

It is important to analyze this business category auditing their financial and assets situation, in a specific period characterized by a dramatic economic crisis that could have reduced the availability of public bodies and families for the care of elderly.

This paper focuses on the capital balance of social welfare home (SWH) as social cooperative form in Italy through the analysis of some capital ratios in the last decade.

The study wants to assess three relevant issues:

RQ1: What is the demographic trend in the world and in Italy?

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RQ3: What are the possible connections between the demographic trend and the capital balance of a social welfare home?

The paper foresees a first part dedicated to the most relevant bibliographic sources offered by the international literature and the Italian one; it is important to take into account that all the analyzed sample companies are Italian.

From this analysis is possible to provide an overview of the social and demographic situation in Italy and in the world, with particular attention to the economic aspects of the whole system and especially to the management of social welfare home. The presentation of the research methodology follows as a

necessary condition for the analysis and discussion of data taken from a significant sample of companies.

Obviously the study requires further insights for the future focusing also on the economic aspects, even if it is necessary to be aware that the legal status of a cooperative requires a peculiar attention on the quantifying possible profit achieved, that is often hidden away in other items of the budget.

The capital, financial and economic position achieved from this kind of analysis has to be linked and seen in connection with the social dimension of these companies.

LITERATURE REVUE

The international doctrine talked especially about a social rule of social welfare home for elderly, these structures are managed by public system.

Especially a nursing home organized in social cooperatives form, are not analyzed about a managerial aspect, particularly if arising by a thought about outcome of accounting.

The most relevant study connected with this paper is that of Fuglsang (2001). This article deals with the management problems of the traditional welfare state. The article is based on observations and interviews with employees in the home-help service for elderly in Valby, a suburb of Copenhagen. The theme of the problems of the elderly is therefore dealt with in a managerial perspective, but the specific needs of a hospice are not focused. Nor, in it, are explicit references to the balance sheet results.

A recent Italian study about this subject is a contribution of Picconi (2017), it is important because provides a framework about national public spending connected to the aging population, this study is near to a medical and nursing support approach (Yokota, 1985; Kamata, 1985).

Another relevant study is that of Accinelli and Salas (2015). This speaks about a Swedish experience about a private management of some social welfare services. To date, experience shows that the coexistence of private and public agent founded by the State, has not been free of obstacles. This article analyzes the problems arising on a regulated market, in which the regulator seeks to maximize social welfare, when a private operator, maximizing profits enter. Even this contribution, although with obvious economic connotations, only provides problems related to the assistance system, but does not focus those typical of the individual company. However, it is essential for the development of subsequent observations, considering that, even in Italy, the management of care for the elderly is entrusted to a mixed public-private system.

Towards a mixed system, while still strongly focused on the state, China is evolving. In this country a large part of the terrestrial population is concentrated, which has similar problems of management of

aging similar to those of Western countries. Ding (2015) shows the trend of “Socializing Social Welfare” policy in China, focusing a study on service quality and social capital in the society-run home for the aged in Beijing. Under the policy, private and non-government sectors are encouraged to provide social services that were previously monopolized by the government. The most significant result of the reform is the growth of Society-run Home for the Aged (SHR) that aims to provide fee-based institutional care for the elderly. The same author, in 2011, with reference to the same welfare situation, proposed to study on service quality, thus allowing a broader picture of the problem addressed. Although dated, it has the merit of focusing the characteristics of a hospice, the object of these notes.

About Chinese situation is connected Nichols study (1984) speaks about the people’s first social welfare institution for the aged: a Chinese nursing home.

Some accounting aspects emerges on Andersson study (2002); he speaks about health care and social welfare costs in home-based and hospital-based rehabilitation post stroke. This article is important because focuses on public and private health costs.

It does not refer, therefore specifically to the elderly, even if the pathology is common to people of the elderly. However, it has the merit of focusing typically managerial aspects. This article can be considered emblematic of a vast literature on the costs of public or private health, representing the general situation, without specifying the economic and financial characteristics of retirement homes for the elderly.

The management problems of the social welfare home, must necessarily also focus on the economic and social status of the guests. In fact, the elderly can contribute to the cost of hospitality only if they have adequate personal income. Not only in age, but also education, sex, having or not a cohesive family, are some of the factors that affect the choice between hospitalization or management at the original home of the elderly, where possible.

Kuroda (2001) and Pazzi (2011) underline some difficult about a setting of a rent. Kay et al. (1957) focus on social and medical aspects of social welfare home: the outcomes are obviously dated. However the methodology used for research is still useful.

The main Italian study underline the important rule of Catholic religion about social welfare for elderly (Cassiani, 2006; Strangio, 2002; Pagano, 1998; Fatica, 1982; Macchione and Zanzi, 2002). There is a relevant literary production about the institution (Trabucchi *et al.*, Morena, 2014; Tosi, 1996) or focus on some management aspects, for example the planning (Lombardo, 2017; Dall’Olio and Mandolesi, 2015), the environment (Carelli and Schiavetto, 2004); the service quality (Trevisani and Baraghini, 2008; De Masi *et al.*, 2001; Guala *et al.*, 2009; De Felice and Furlanetto, 2002), the staff organizations (Ansdipp, 2010; Nuzzo, 2009).

On international and Italian bibliography lack accounting and managerial studies about the social welfare home. Lack, also, a comparative study about economic and financial balance of these organizations, in social cooperatives form. The next study propose some reflections on these topics.

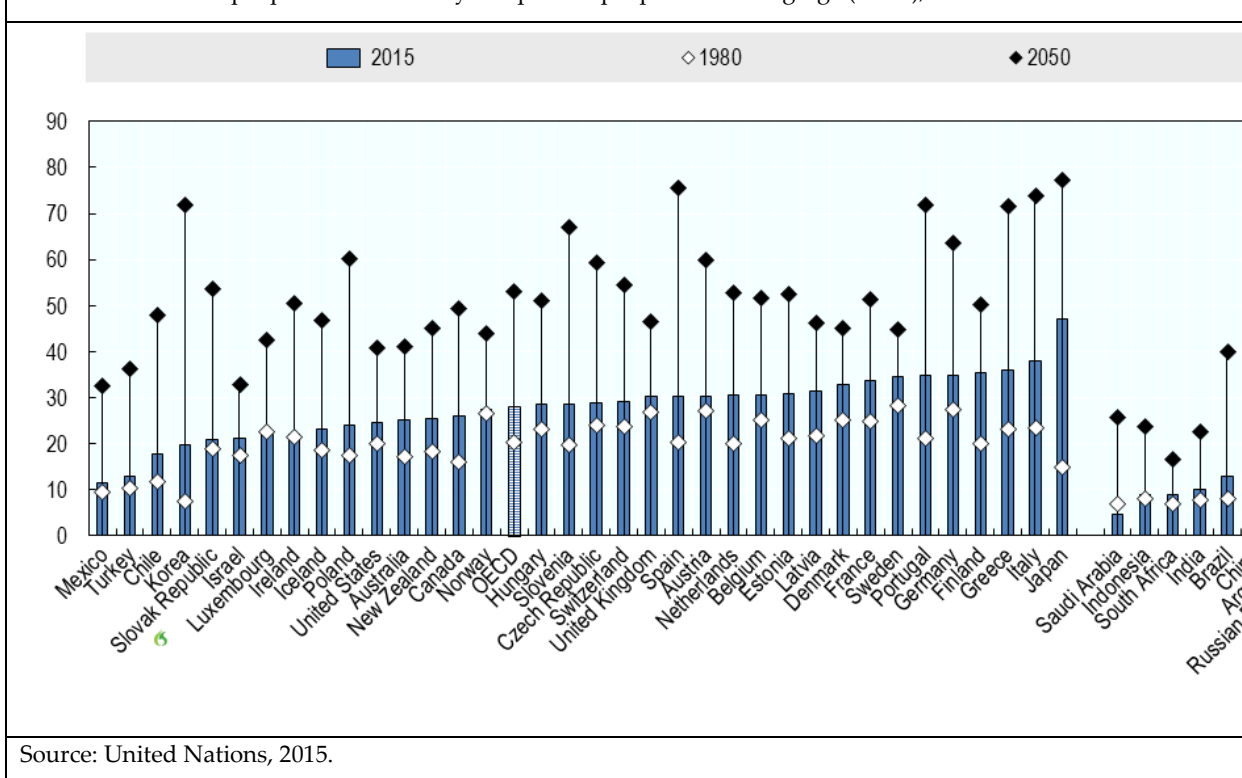
SOCIAL AND DEMOGRAPHIC SITUATION IN ITALY AND IN THE WORLD (NOTES)

The social welfare home for elderly and disabled are organization that manage a relevant increasing of population that is changing the social and demographic aspect, therefore services to respond to this changing are now needed.

Living a long life has become the norm in most countries (table 1). On average the 70% of males born 70 years ago are now 70 years old and the 93% of males born today have the same life expectancy. Women live longer. The probability of living until the age of 85 will increase from the actual 50% to 75% by 2100 for males born today, and from the 64% to 83% for females (OECD, 2017).

However, ageing doesn't proceed gradually: this is related to people education that ensures a better quality of life and, above all, disease prevention.

Table 1: Number of people older than 65 years per 100 people of working-age (20-64), 1980-2050.



Source: United Nations, 2015.

The life quality is related to many aspects as the lifestyle and a life compatible with own personal values. The economic resources are, therefore, just goods while the quality time, the participation in social and political life, the health conditions etc. are indicators that express a better life quality; all

these elements increase the longevity. In Italy, in 2016, the life expectancy was 80,6 for male and 85,1 for female (ISTAT, 2017, p. 97). According to Istat research, on the first January 2017 people aged more than 65 were 13,5 million, over the 22% of all population, while people aged more than 80 were the 6,8 %. The table n. 2 shows the Italian population in the different macro-regions from 2015 to 2017.

Table 2: demographics indicators for each italian geographic allocation									
Geographic allocation	Life expectancy (anni)				Age classes (al 1° gennaio)			Aging indicator (al 1° gennaio)	
	Male		Female		0-14 ages (%)	15-64 ages (%)	Over 65 (%)		
	2015	2016	2015	2016	2017	2017	2017	2016	2017
Nord-west	80,3	80,9	84,8	85,4	13,3	63,1	23,6	173,2	176,5
Nord-east	80,7	81,1	85,2	85,6	13,6	63,4	23,0	166,8	170,0
Center	80,4	80,9	84,9	85,4	13,2	63,7	23,1	172,3	175,4
South	79,4	79,9	83,9	84,4	14,0	65,8	20,2	140,4	145,0
Islands	79,5	79,9	83,8	84,3	13,5	65,5	21,0	151,2	155,8
ITALY	80,1	80,6	84,6	85,1	13,5	64,2	22,3	161,4	165,2
Source: Istat, 2017, p. 96.									

In the table n. 3 can be seen the aging of population from 1952 to 2017: the one aged between 0 and 14 has decreased while the over 65 has increased.

Table 3: Avarage population for age class		
Year	Population 0-14 (%)	Population over 65 (%)
1952	26,1	8,2
1964	24,2	9,7
1984	20,2	12,9
1995	14,8	16,5
2017	13,5	22,3
Source: Our elaboration, from Istat, 2017.		

The aging of population is more clear in the South of Italy as shown in table n. 4.

Table 4: The demographic future of population in Italy: average age						
YEAR	North-west	North-east	Center	South	Islands	Italy
2016	45,5	45,2	45,3	43,1	43,8	44,7
2025	47,1	47,0	47,0	45,2	46,2	46,7
2045	49,3	49,5	49,4	50,2	50,5	49,7
2065	49,4	49,5	49,5	51,6	51,6	50,1
Source: our elaboration from Istat, 2017.						

SOCIAL WELFARE HOME IN ITALY

The social welfare home can be a solution to satisfy the demand of services in a society characterized by a high average age. In Italy the 14% of these companies are public undertakings, the 70% are

private (with different legal forms), the other are ex IPAB - Public assistance and benefic Institute (Ires Morosini, 2017). Within the 70%, the 15% is represented by social cooperatives.

A distinction according to the dimension classifies the 43,4 % as small (with a number of beds under 50), the 38,9 % as medium (with a number of beds between 51 and 100); the remaining are considered larger group (with over 100 beds).

As for other fields, there is a huge difference between north and south regions. In the southern Italy social welfare home for dependent elderly are prevailing. In the northern Italy there are 236 bedsides for elderly in 10.000, in the central Italy 76,3 beds in 10.000 and in the southern Italy just 16,8 home (table 5).

Table 5: Beds each 10.000 residing		
GEOGRAPHIC ALLOCATION	Beds in a residential structure for elders	Beds each 10.000 residing
North-west	77 740	228,1
North-east	59 275	246,2
Center	19 290	76,3
South	6 271	16,8
Italy	162 576	134,5
Source: Our elaboration from Montemurro, 2012.		

RESEARCH METHODOLOGY

Data collection and sample characteristics

The research has a quantitative connotation. The capital ratios analysis is the result of 107, these balances exist on Aida database (Informatic Analysis of Italian Companies) of Bureau van Dijk. The companies that have the following characteristics:

- 1) Ateco code: 87.30.00 al 2007;
- 2) Class: "social-welfare home";
- 3) Legal form: social cooperative;
- 4) Number of employees: between 1 and 100.

The trends of some ratios are analyzed: leverage, liquidity index, current ratio, covering fixed assets ratio, with some brief comments.

RESULTS AND DISCUSSION

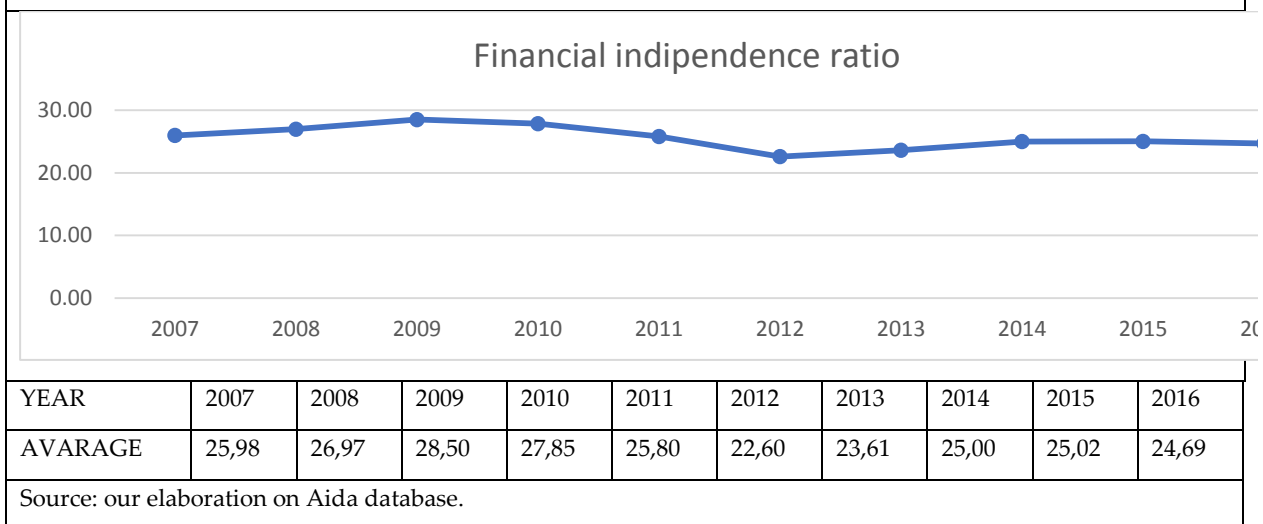
Trend analysis: capital and financial analysis

It is possible to analyze some reclassified indices of Aida database, those values are a result of a statistical average of 107 companies.

Borrowing

The *financial independence ratio* underlines the ability of company to face the external sources of finance. This index is a ratio between equity and activity (%) (table 6).

Table 6: Trend of financial independence ratio %.

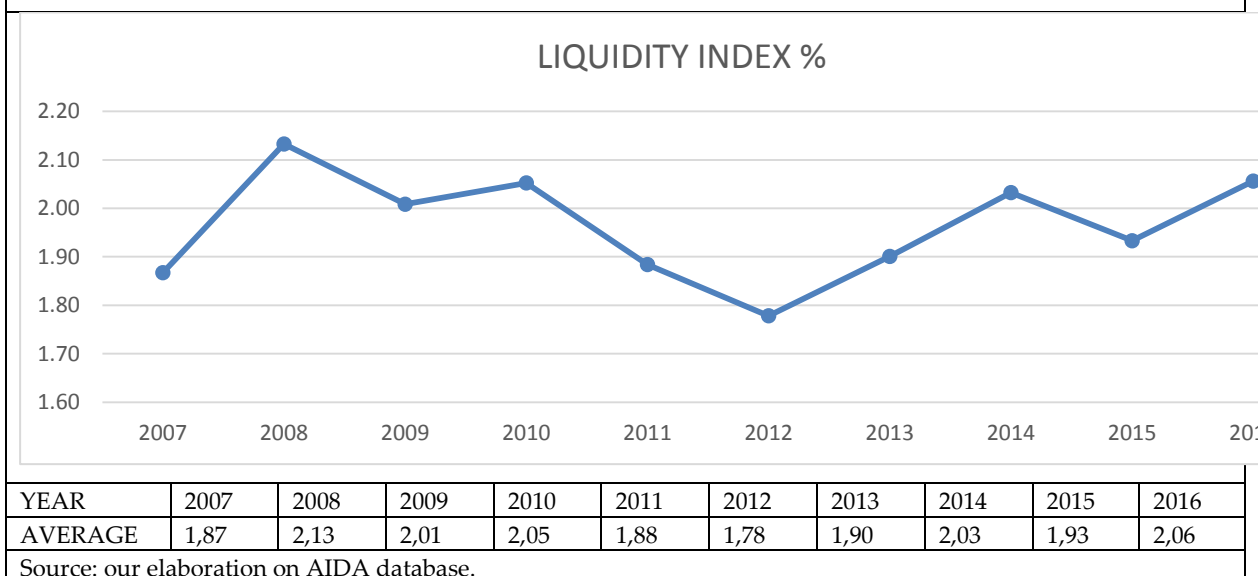


The trend of index is relatively stable, with an interpolating value of approximately 25%. The highest average value was recorded in 2009; the lower one in 2012. The economic crisis could have induced companies to higher debt that is returned in the years following. The variations, however, are small and perhaps are connected to a physiological development of management and not about a particular strategy. There is an evident dependence by external financial sources.

Short-term financial balance

Liquidity index – This index is a ratio between immediate and deferred cash flow and debt in short-term. It measures the prospective ability of the business to fulfil the short-term obligations with actual financial resources (table 7).

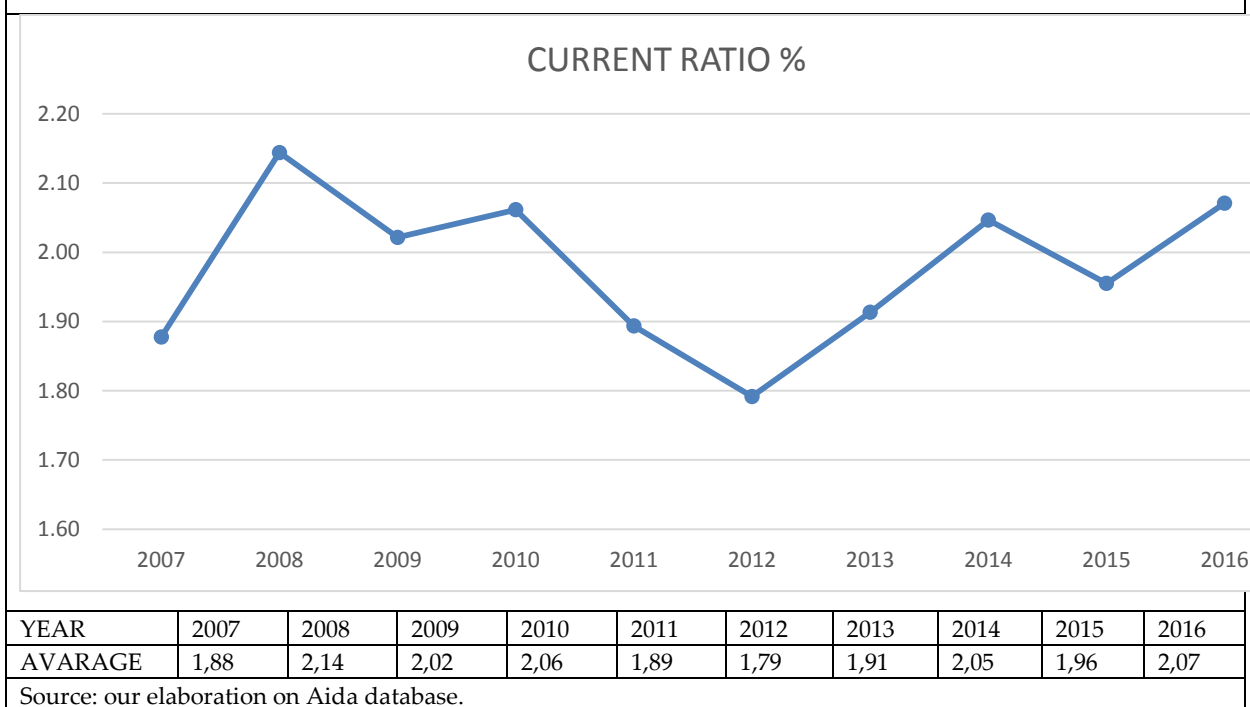
Table 7: Trend of liquidity index %.



The index fluctuates between 1,87% from 2007 and 2,06% from 2016. From 2008 the index was in progressive reduction with the lowest value in 2012; the values subsequently increase until to achieve the point of maximum at the beginning of the period. No significant trends emerge in the most acute years of the crisis. The minimum point is registered in the same year as the financial independence index. Connections between the quantities analyzed are assumed.

Current ratio – It is a ratio between current activity and short-term debts. It is similar to liquidity index, but in the numerator in addition there is also the stock value. It measures the ability of the company to sovereign the short-terms debts with the gross working capital (table 8).

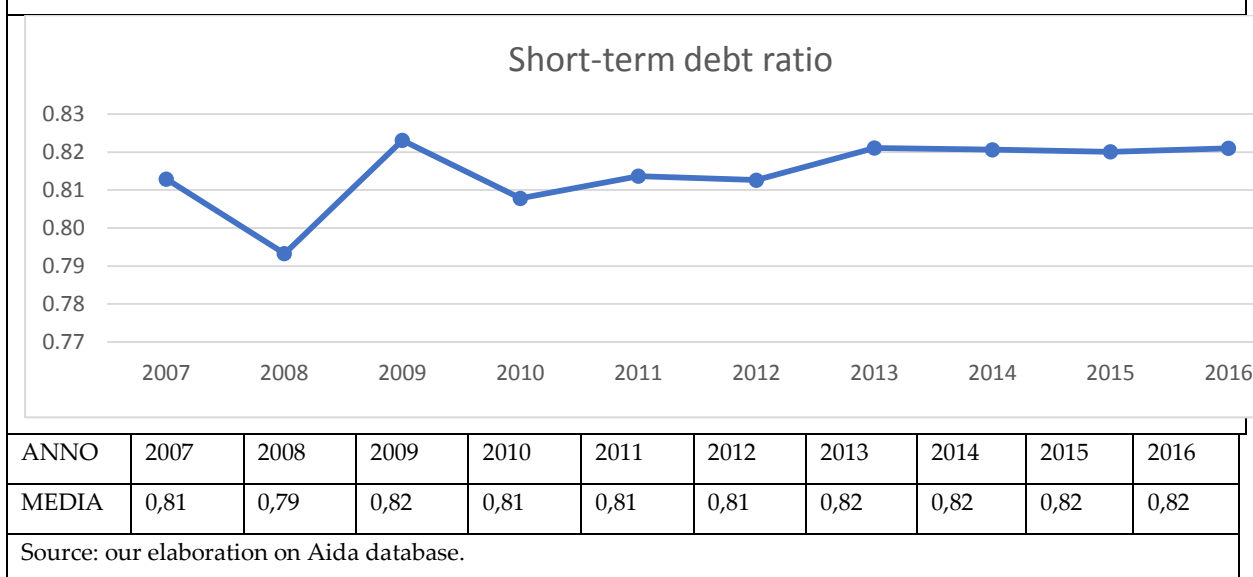
Table 8: Trend of current ratio %.



The values ranges from 1,79% in 2012 to 2,14% in 2008. This value has an almost parallel trend to the liquidity index. The stock value is clearly irrelevant presumably because of the consumables used for the management of premises and furniture but also for the medical stock used for the residents' treatment. Also in this case the minimum point is recorded in 2012.

Short-term debt ratio (short-term debts/total debts). It completes the analysis of the areas of capital that are abstractly referable to the short term. It measures the incidence of debts that expire in the short term compared to total external sources (table 9).

Table 9: Trend of short-term debt ratio.

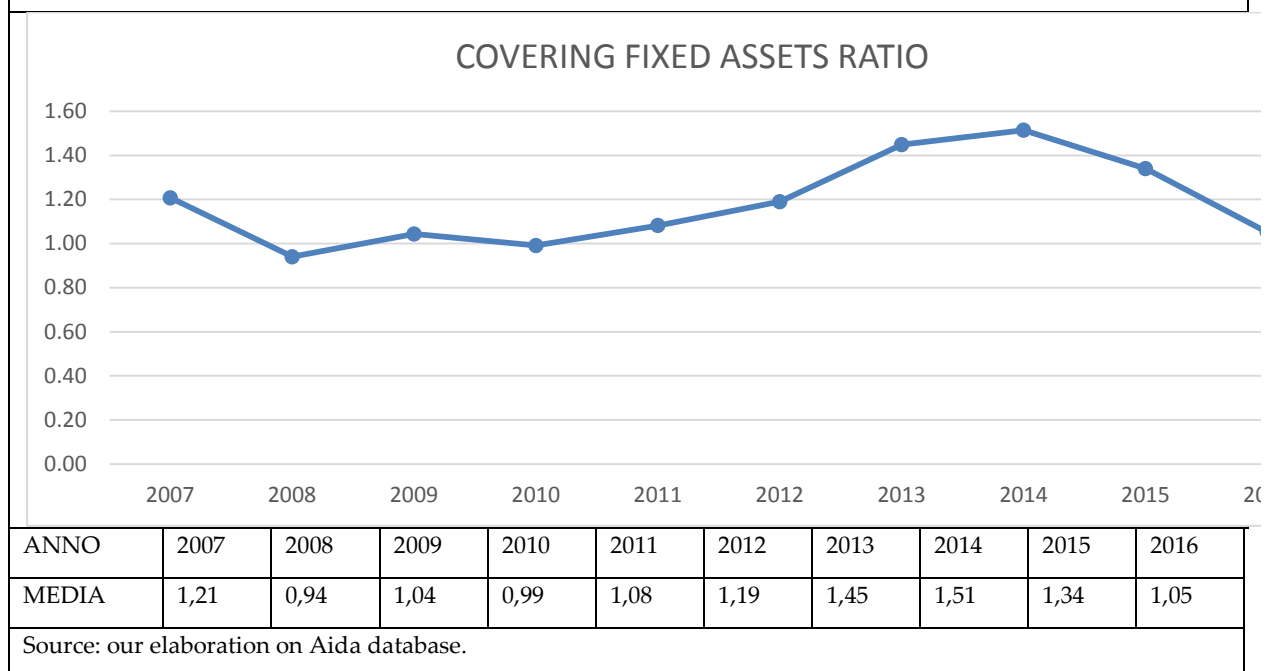


Short-term payables are clearly prevalent compared to medium-long term loans. The index shows changes of a few cents settling on a value of just over 80%. The presence of medium-long term third-party sources is therefore modest. Crossing these results with the financial independence index that showed a clear prevalence of external sources (about 75%) with respect to equity, it can be said that the equity column of the sources is substantially dominated by short-term payables.

Financial balance in a middle/long-term

Covering fixed assets ratio (material fixed assets/equity). It expresses the ability of financial sources invested indefinitely to cover the multiannual costs for material fixed assets. The trend is on table 10.

Table 10: Trend of covering fixed assets ratio.



A satisfactory judgment on the performance of the index can be expressed. Ironically in the worst period of international economic crisis has the best value. The equity sources are inadequate but for low values. There is a deterioration from 2010 to 2014, while in the last two years there is an improvement. In the future this ratio will integrate with a total fixed assets and not only material fixed assets.

CONCLUSIONS

The aging of the population affects many countries in which the standard of living has improved, also thanks to the development of medical science.

The life of the elderly solicits moral, ethical, social and economic reflections, above all when they are not self-sufficient. In fact, families can not always look after their loved ones in their homes, despite the home services that could be activated by public or private institutions.

Although not desirable, hospitality in specially designed and managed residences can become a necessity to allow the elderly to have the best possible services. In this way their families can continue to work, without upsetting their life program too much.

Social welfare home can be set up by public authorities or private individuals, possibly co-operating with the national social security system. They can take different legal forms: in Italy the form of social cooperatives is prevalent, combining business logic with mutualistic principles.

International literature is focused on the social dimension of current demographic trends and the general consequences on the economy of the prevalence of older people. Studies on the management of individual companies are rare. Fuglsang (2001), Accinelli and Salas (2015), Ding (2011 and 2015), Nichols (1984) explain some management problems connected to context of welfare state, but don't based on balance analysis. More general (Picconi, 2017) are the publications that give a framework of national public spending connected to this problem.

The proposals of Andersson *et al.* (2002), Kuroda *et al.* (1992) e Pazzi (2011) develop a relevant connection between the operating costs and a tuition of guests that, but, don't analyze the general theme of economical and financial balance of social welfare home.

Also the Italian bibliography explains only some management aspects, for example a design (Lombardo, 2017; Dall'Olio and Mandolesi, 2015), the environment (Carelli and Schiavetto, 2004); the quality services (Trevisani and Baraghini, 2008; De Masi *et al.*, 2001; Guala *et al.*, 2009; De Felice and Furlanetto, 2002), the human resources organization (Ansdipp, 2010; Censi, 2001; Nuzzo, 2009), but these studies don't analyze the balance.

It is not possible develop a comparative analysis between the proposals of doctrine and a results of this study.

The study of the economic and financial equilibrium of socio-assistance residences can, instead, stimulate useful reflections (Montemurro, 2012) related to their dimensional growth, their organization considering the delicacy of the services provided and the managerial approach that must mediate the needs of economic and financial balance with the ethical principles of respect for human life up to natural death.

The statistical data presented demonstrate a current and increasing potential demand for such structures, especially in some Italian macro-regions.

The phenomenon, therefore, affects and will increasingly affect the national economy for possible contributions to state expenditure or to the families of older people. Spending is related to the economic and financial dimension of the host companies of which an analysis was presented.

The sector appears to be relatively under capitalized with a substantial presence of indebtedness. However, this negative judgment is attenuated considering that risk capital appears quite adequate compared to tangible fixed assets. The treasury situation is not worrying.

There are no significant correlations with the trend of the international economic crisis: it seems that the sector has not been affected, at least in the balance of assets, of the problems that have affected so many States. Some common trend between index appear in 2012.

In the near future it will be necessary to develop a more detailed analysis of the balance sheet, expanding the sample of companies. It will then be necessary to study the performance of other equity and income indices.

This study is a part of a larger project, that analyses the effects of the crisis on the economic-financial balance of Italian companies. The results of similar research on cooperatives have already been published (Fusco and Migliaccio, 2015, 2016¹ and 2016²). Next publication of further analysis: Fusco and Migliaccio (doi: 10.1504/IJBG.2019.10011867), Iovino and Migliaccio (doi: 10.1504/IJBG.2019.10011698), Fusco and Migliaccio (doi: 10.1108/EMJB-02-2016-0002). Therefore, it is part of a more ambitious project within which it can be appropriately evaluated. We hope that in the future it will be possible to make comparisons between companies and different sectors to identify possible parallel developments.

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AN INVESTIGATION INTO THE IMPORTANCE OF ANALYTICAL COMPETENCIES: A HOSPITALITY INDUSTRY PERSPECTIVE

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ABSTRACT

Purpose: This study aims to evaluate the importance of big data and analytical competencies in the hospitality industry workforce. Consequently, it will underscore corresponding concerns for hospitality education.

Design/ Methodology: A cross-sectional survey was used to rate the importance of marketing and industry analysis among hotel managers in five key business areas.

Findings: Over 70% of respondents felt that data analytics are either important or extremely important in terms of both marketing and industry analysis. Furthermore, in correlation testing, significant relationships were shown among several of the key marketing and industry competencies with both the digital and analytical skills assessed.

Implications: New cross-training approaches may be needed among hospitality academic departments, a result of new decision-making skills not being limited to one specialization.

Limitations: A broader-based survey among hospitality management and customer-contact employees is recommended where more tangible job functions may be matched with big data skills and competencies.

Originality/value: This research is well suited for the hospitality educational sector, contributing to a better understanding of the perceived importance of analytics skills for employees, especially in strategic marketing and industry analysis.

Keywords: big data, analytics skills, industry analysis, hospitality competencies

INTRODUCTION

How is data analytics changing today's business? "Analytics in modern day business can be best defined as engaging in use of data—structured or unstructured, with formal analysis—statistical or machine learning, to arrive at learnings that help in making better business decisions" (Agrawal, 2014). In particular to marketing, it has been noted that big data analytics is important in defining a company's target market, adjusting strategy in real time and knowing what kind of tension the brand is resolving in consumer's lives (Soat, 2013). Like all businesses, the hospitality industry must also be

responsive to the advantages of analytics in order to engage their customer, sustain a competitive advantage and remain relevant in changing market conditions.

AIM OF STUDY

Does the curriculum of hospitality schools provide the analytical competencies necessary to be competitive in their industry?

OBJECTIVES

- 1) What is the current perception of industry professionals toward the importance of Big Data Analytics?
- 2) How important are analytical competencies considered in five key areas of marketing and industry analysis?

BACKGROUND

DATA ANALYTICS

Big Data Analytics (BDA) has been defined as the collection, analysis, visualisation, use and interpretation of data for various functional divisions with a view to gaining actionable insights, creating business value and establishing competitive advantage (Motamarri et al., 2017). The relevance of the topic is supported by literature confirming the business impact of analytical skills; whereas top-performing companies are three times more likely than lower performers to be sophisticated users of analytics, and are two times more likely to say that their analytics ability is a competitive differentiator (LaValle et al., 2011). However, studies have shown that few marketing organizations are able to take full advantage of new digital and advanced analytics tools that would enable them to be more agile, engaging, and effective. They are also missing out on growth. A recent McKinsey survey of executives found that 81 percent of high-growth companies outperformed in data and analytics (Buck et al., 2017).

The practice of representing data in coherent graphs and tables has always been a key business requirement, but established methods of gathering and displaying information were soon insufficient under the dramatic changes brought on by mass digitalization. By 2010 the idea of big data being a single concept was promoted and it displayed three unique characteristics (Agrawal, 2014):

- a) Big data is generally large in quantity, complex in nature and continuously generated. Real-time analytics are normally required along with the ability to handle immense (petabytes)

amounts of data. Classical analytics generally do not apply giving rise to machine-learning analytical techniques.

- b) Big data contains material from both structured and unstructured sources. Today there is more emphasis on unstructured data as collected from social media sites such as CRM/ERP systems, customer transactions, videos, audios, e-commerce transactions and others.
- c) Big data has a much higher reliance on a well-developed information technology infrastructure than previous classical analytics techniques. Features such as cloud computing and inexpensive storage are key data engineering ingredients.

Examining big data by attributes reveals seven central distinctions: veracity, velocity, variety, volume, variability, visualization and value all resulting from user-generated content, social media, enterprise systems, and other sources valuable in detecting population trends and predicting individual behavior (Goes, 2014, Akerkar, 2014). One of the proposed benefits of BDA is that it enables businesses to strike a balance between standardization and customization to deliver a service in a much more personalized manner (Motamarri et al., 2017, Kiron & Shockley, 2011). Many leading companies such as Amazon, Netflix, Google, Walmart, eBay, Facebook, and General Electric are using BDA techniques for competitive advantage in their industry (Agrawal, 2014). In hospitality, it has been suggested that big data analysis of electricity usage may allow major hotel chains to study their own energy efficiency dynamics (Kahn & Liu, 2016).

However, this flood of enormous quantities of free-flowing data from ever-increasing sources has presented complex problems to businesses trying to capture the value of BDA for their company. Akerkar (2014) and Zicari (2014) have demonstrated that the characteristics of big data as well as available analytical methods and current technology have created broad challenges which they have grouped into three main categories (Sivarajah et al., 2016):

- 1) Data challenges—relating to the characteristics of the data itself
- 2) Process challenges—procedures such as data acquisition, modelling and interpretation
- 3) Management challenges—issues such as privacy, security and ownership

In spite of these and other challenges the key premise has not changed, namely using data to make better and more informed decisions. BDA's attempt to release the true power of information locked in different data sources is perhaps the best way to understand what analytics is really about (Agrawal, 2014).

MARKETING IMPLICATIONS

One of the chief benefits of the analytics process, including the deployment and use of BDA tools, is its ability to gain competitive advantage over business rivals (Sivarajah et al., 2016). The implications of such a general intention can be aided by listing some common decisions helped by analytics along with the objective sought (Agrawal, 2014):

- 1) Concept development—choosing the most promising product or service
- 2) Product development—to design products and customize features
- 3) Brand strength—to know strengths & weaknesses *vis-a-vis* competing brands
- 4) Customer satisfaction & loyalty—to know extent & strength among current users
- 5) Marketing mix optimization—the right budget across all options
- 6) Pricing—to enable business growth & customer loyalty
- 7) Customer segmentation—similarities & differences as well as who are the best customers
- 8) Sentiment analysis—what customers are saying on social media & other platforms
- 9) Advertising testing—to test advertising creative using quantitative data

New analytical research methods have also been suggested for optimizing marketing-mix spending in a data-rich environment (Wedel, 2016) as well as using data sources, methods and applications to lay a foundation for the marketing perspectives of people, product, place, price and promotion (Fan et al., 2015). Additionally, it has been proposed that an entire New Marketing Science is needed today that generates deep insights into the thoughts and actions of customers, treating them as fully realized people living complex lives and motivated by multiple goals and values. For example, the meanings of a consumption experience must be understood within a customer's larger life context (Zaltman et al., 2015). This level of understanding would only be possible through the deployment and support of a strong data analytics foundation. Equally, successfully creating data-driven customer engagement, generating value for both the customer and the company, requires a framework that comprehensively captures both the customer's and firm's perspectives (Kunz et al., 2017).

HOSPITALITY COMPETENCIES

An implication of this study highlights the difficulty confronting higher education institutions offering degrees in the hospitality field. How do they respond to the demanding challenges created by

this rapidly evolving business environment? While the hospitality curriculum tries to maintain a balance between management expectations and student perceptions (Raybould & Wilkins, 2006) and many schools evaluate their programs regularly (Millar et al., 2010), industry professionals often feel hospitality courses are outdated, requiring adjustments that adequately reflect the changes in the business environment (Min et al., 2016).

It has been argued that the first step to address this gap in critical skills is aligning a hospitality curriculum that prioritizes course subjects according to perceived importance by industry professionals, reflecting the changing needs of the industry (Gursoy et al., 2012). Obtaining fresh and relevant opinions “can enable hospitality programs to continuously identify the gaps between industry expectations and graduating academic preparation” (Min et al., 2016). Several studies have been undertaken to assess the significance of this proposal by implementing a methodology where industry professionals were asked to rate the perceived value of certain competencies for success in the industry and how these skills should be part of an ongoing adjustment to today’s hospitality programs (Min et al., 2016; Swanger & Gursoy, 2007, 2010). This study will follow a complementary methodology.

DESIGN/METHODOLOGY

With Big Data Analytics promising a better understanding of marketing and industry analysis, *five key areas* were offered for evaluation to the survey respondents: *improving customer relationships, conducting industry and competitor analysis, leveraging product and service positioning, creating a brand experience and using social media to connect with customers*. In addition, the terms “digital and analytical skills” and their perceived importance to today’s working environment were examined.

Questionnaires containing importance scales were returned by 72 employees from the hospitality industry, all alumni from a prominent hospitality management school. Likert scales provided numerical values for perceived significance. The summated rating used in the questionnaire included a range of replies from “not important” to “extremely important.” Findings were evaluated according to skewness, based on mean and mode. Descriptive statistics were used to portray the respondents’ demographic profiles including frequency and percentage.

Quantitative data were analyzed with SPSS v23. Spearman rank correlation was used to appraise relationships between marketing and industry analysis and analytical competencies.

In addition, open-ended questions were analysed to capture employees’ learning requirements related to managing big data and applying analytics skills.

FINDINGS

Employee characteristics

The following section illustrates the respondents' demographics: department of employment, length of employment, level of education and region.

Employees characteristics are presented in Tables 1.1-1.4. Among 72 employees from the hospitality industry, the majority of respondents (33.3%) work in management department, 30.6% of employees have less than 5 years of experience and 62.5% hold undergraduate diplomas. Most of the participants work in Europe (38.9%) and Asia/Pacific (34.7%) regions.

TABLE 1.1: EMPLOYEE CHARACTERISTICS – DEPARTMENT

	Frequency	Percent	Cumulative Percent
Management	24	33.3%	33.3%
Sales & Mktg	12	16.7%	50.0%
F&B	12	16.7%	66.7%
Others	24	33.3%	100.0%
Total	72	100.0%	

TABLE 1.2: EMPLOYEE CHARACTERISTICS – LENGTH OF EMPLOYMENT (IN YEARS)

	Frequency	Percent	Cumulative Percent
less than 5	22	30.6%	30.6%
5-10	17	23.6%	54.2%
11-20	18	25.0%	79.2%
more than 20	15	20.8%	100.0%
Total	72	100.0%	

TABLE 1.3: EMPLOYEE CHARACTERISTICS – LEVEL OF EDUCATION

	Frequency	Percent	Cumulative Percent
Graduate & Post	27	37.5	37.5
Undergraduate	45	62.5	100.0
Total	72	100.0%	

TABLE 1.4: EMPLOYEE CHARACTERISTICS – REGION

	Frequency	Percent	Cumulative Percent
Asia/Pacific	25	34.7	34.7
Europe	28	38.9	73.6
Latin America	4	5.6	79.2
Middle East	3	4.2	83.3
North America	12	16.7	100.0
Total	72	100.0%	

Descriptive statistics

The following section illustrates the results from respondents' opinions of importance of marketing and industry analysis. Table 2 provides participants' scaled responses to the questionnaire. The results show that all marketing and industry analysis areas, except Conducting Industry and Competitor Analysis, are highly skewed. The digital and analytical skills results, except big data, are highly skewed. Measures of location indicate that marketing and industry analysis skills are perceived as very important.

TABLE 2: IMPORTANCE OF MARKETING & INDUSTRY ANALYSIS (DESCRIPTIVE)

Marketing & Industry Analysis	Mean	Median	Mode	Skewness Statistic	Std. Error of Skewness	Cronbach's Alpha Coefficient
						0.8171 (0.822) ²
Improving Relationships	4.07	5.00	5.00	-1.309	.283	0.8263
Conducting Industry and Competitor Analysis	4.10	4.00	5.00	-.905	.283	0.796
Leveraging Product and Service Positioning	3.96	4.00	4.00	-1.252	.283	0.798
Creating a Brand Experience	4.46	5.00	5.00	-1.863	.283	0.803
Using Social Media to Connect with Customers	3.97	4.00	5.00	-1.123	.283	0.801
Digital Strategy	4.00	4.00	5.00	-1.084	.283	0.789
Digital Trends	4.00	4.00	5.00	-1.084	.283	0.786
Analytics	4.07	4.00	5.00	-1.041	.283	0.789
Big Data	3.72	4.00	4.00	-.781	.283	0.797
	4.08		5.00			

¹Summated scale Cronbach coefficient, which indicates internal consistency reliability

²Cronbach's Alpha based on standardized items

³Cronbach's Alpha if item deleted

Marketing and industry analysis

The following section illustrates the results from respondents' opinions of importance of marketing and industry analysis. Frequency table finding (Table 3.1) shows that more than two-thirds of respondents perceived Creating a Brand Experience as extremely important. Percentage table (Table 3.2) indicates that very important perception of Leveraging Product and Service Positioning is confirmed by more than 79% of respondents.

TABLE 3.1: IMPORTANCE OF MARKETING AND INDUSTRY ANALYSIS (FREQUENCY)

	Improving Customer Relationships	Conducting Industry and Competitor Analysis	Leveraging Product and Service Positioning	Creating Brand Experience	a Using Media to Connect with the Customers
Not Important	7	1	3	1	5
Slightly Important	2	4	4	4	4
Moderately Important	10	14	8	5	11
Very Important	13	21	35	13	20
Extremely Important	40	32	22	49	32
Total	72	72	72	72	72

TABLE 3.2: IMPORTANCE OF MARKETING AND INDUSTRY ANALYSIS (PERCENTAGE)

	Improving Customer Relationships	Conducting Industry and Competitor Analysis	Leveraging Product and Service Positioning	Creating Brand Experience	a Using Media to Connect with the Customers
Not Important	12.5	6.9	9.7	6.9	12.5
/Slightly Important					
Moderately Important	13.9	19.4	11.1	6.9	15.3
Very Important	73.6	73.6	79.2	86.1	72.2
/Extremely Important					
Total	100%	100%	100%	100%	100%

Digital and analytical skills

The following section illustrates the results from respondents' opinions of importance of data analytics skills for the hospitality workforce. Specific citations from employees revealing importance of data analytics skills have been addressed:

"Analytics is central to any business which takes itself seriously."

"As reality shifts from the physical to the virtual, understanding trends in the virtual is a key pillar of success."

"Analyzing disruptors through the usage of big data."

The following tables (Tables 3.3-3.4) provides participants' scaled responses to the survey in terms of perceived importance of digital & analytical skills.

TABLE 3.3: IMPORTANCE OF DIGITAL & ANALYTICAL SKILLS (FREQUENCY)

	Digital Strategy	Digital Trends	Analytics	Big Data
Not Important (1)	4	4	2	5
Slightly Important (2)	3	3	5	6
Moderately Important (3)	14	14	12	15
Very Important (4)	19	19	20	24
Extremely Important (5)	32	32	33	22
Total	72	72	72	72

TABLE 3.4: IMPORTANCE OF DIGITAL & ANALYTICAL SKILLS (PERCENTAGE)

	Digital Strategy	Digital Trends	Analytics	Big Data
Not Important /Slightly Important	9.7	9.7	9.7	15.3
Moderately Important	19.4	19.4	16.7	20.8
Very Important /Extremely Important	70.8	70.8	73.6	63.9
Total	100%	100%	100%	100%

Marketing & industry analysis and digital environment

Table 4.1 examines the relationship between marketing and industry analysis with digital environment, which includes Digital Strategy and Digital Trends.

The results indicate significant correlation between Using Social Media to Connect with the Customers and a perceived importance with *both* digital strategy and trends. In addition, a significant correlation exists between Conducting Industry and Competitor Analysis area and digital trends. Leveraging Product and Service Positioning is also correlated with digital trends.

TABLE 4.1: MARKETING & INDUSTRY ANALYSIS AND DIGITAL ENVIRONMENT

Marketing & Industry Analysis	Digital Strategy r1 and p-value	Digital Trends r and p-value
Improving Customer Relationships	0.093, p=0.438	0.087, p=0.467

Conducting Industry and Competitor Analysis	0.230, p=0.052	0.335**, p=0.004
Leveraging Product and Service Positioning	0.223, p=0.060	0.280*, p=0.017
Creating a Brand Experience	0.159, p=0.182	0.099, p=0.410
Using Social Media to Connect with the Customers	0.386**, p=0.001	0.296*, p=0.012

¹ Spearman correlation coefficient

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Marketing & industry analysis and analytical competencies

Table 4.2 examines the relationship between marketing and industry analysis and analytical competencies, which includes Analytics and Big Data.

The results reveal significant correlation between Conducting Industry and Competitor Analysis and the perceived importance of both Analytics and Big Data. Leveraging Product and Service Positioning as well as Creating a Brand Experience are significantly correlated with the perceived importance of Analytics.

TABLE 4.2: MARKETING & INDUSTRY ANALYSIS AND ANALYTICAL COMPETENCIES

Marketing & Industry Analysis	Analytics r1 and p-value	Big Data r and p-value
Improving Customer Relationships	0.225, p=0.058	0.116, p=0.331
Conducting Industry and Competitor Analysis	0.408**, p=0.000	0.311**, p=0.008
Leveraging Product and Service Positioning	0.313**, p=0.007	0.202, p=0.089
Creating a Brand Experience	0.268*, p=0.023	0.145, p=0.225
Using Social Media to Connect with the Customers	0.224, p=0.058	0.200, p=0.091

¹ Spearman correlation coefficient

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

DISCUSSION

1. What is the current perception of industry professionals toward the importance of Big Data Analytics?

The sample showed a disperse frequency in both the service department and in the length of time

employed by the respondents, addressing a preconception that interest in BDA would be chiefly shown by younger workers in the marketing sector. Likewise, there was both geographical and educational diversity as represented by the sample.

When asked to assess the importance of digital and analytical skills, more than 70 percent of the respondents rated these skills either very or extremely important. This high ranking of digital and analytical skills speaks well in support of both the findings of Motamarri et al., 2017, where a key value of BDA resides in gaining actionable insights as well as being a competitive differentiator, as proposed by LaValle et al., 2011.

2. *How important are analytical competencies considered in five key areas of marketing and industry analysis?*

It is noteworthy that in all five key areas—*improving customer relationships, conducting industry and competitor analysis, leveraging product and service positioning, creating a brand experience and using social media to connect with customers*—marketing and industry analysis were considered very important or extremely important in over 70 percent of the responses.

In correlation testing, significant relationships were shown among several of the key marketing and industry competencies with both the digital and analytical skills assessed.

The results of the study reveal the perceived importance of analytics skills in the strategic management of organisations among hospitality industry professionals. The relevance of big data and analytics in today's "new culture of decision making" is clearly recognized in the responses of the employees. This perception is a healthy sign for the future of hospitality as it displays an understanding of the importance of BDA for the employees on the front lines with their customers. Again, this is in agreement with the findings of both Sivarajah et al., 2016 and Agrawal, 2014.

"They have come to understand that top performers approach business operations differently than their peers do. Specifically, they put analytics to use in the widest possible range of decisions, large and small. They were twice as likely to use analytics to guide *future strategies*, and twice as likely to use *insights* to guide *day-to-day operations*. They *make decisions based on rigorous analysis* at more than double the rate of lower performers. The correlation between performance and analytics-driven management has important implications to organizations, whether they are seeking growth, efficiency or competitive differentiation" (Lavallo et al., 2011).

IMPLICATIONS OF THE STUDY

Does the curriculum of hospitality schools provide the analytical competencies necessary to be competitive in their industry?

One of the big challenges affecting the success of BDA is to recruit fresh talent and train current employees in big data-specific skills, since working with big data requires new kinds of technical and managerial abilities, which are not commonly taught in universities (Chen et al., 2013). The hospitality industry in particular expects undergraduates from degree programs to have a basic understanding of how to produce results within a high-pressure environment (Johanson et al., 2010), whereas traditionally internships provide the connection between academic coursework and industry (Hergert, 2009).

“It is estimated almost half of the current hospitality educators in the United States will be retiring within the next 10 years. In their place, the junior faculty who remain, as well as new hires, will have substantially less industry experience than their predecessors” (Phelan et al., 2013). Industry experience in hospitality operations has been rated highest by faculty based on their own prior experience before teaching those subjects with the understanding that former industry practitioners are in the best position to determine which skill sets are necessary for a successful career in hospitality (Phelan et al., 2013). However, senior faculty may also be lacking experience in new technology and techniques. It has been suggested that all faculty be held to the same standard regarding industry experience as undergraduates, substantiating the need for faculty internships or continuing education (Njoku et al., 2010).

Among the several resources that will allow firms to create a BDA capability are managerial and technical skills, supported by a data-driven culture and intense organizational learning (Gupta et al., 2016). But as helpful as recognizing the skillset necessary for effective implementation of BDA might be, it is unfortunately not enough. A more active attitude must be taken by hospitality schools in preparing students for the rapidly changing business world.

McKinsey Consulting has highlighted four key areas that businesses need to consider when starting commercial analytics (Atkins, 2018):

- 1) Has your organization defined the *metrics* and identified the data needed to run the business?
- 2) Do front-line management and other important commercial team members have access to these *tools* and data?
- 3) Is there a *leader* in place who is responsible for delivering clean and reliable data?

4) Is there a piece of the *commercial process* that you can target to get started?

These business guidelines offer excellent entry points where hospitality educators can customize programs and courses that support both the hard and soft skills that make BDA successful.

Limitations/Future Research

Although the survey showed good variety in service occupation and length of employment, the scope was limited to the alumni association of one hospitality management school. At minimum, a broader-based survey among hospitality management and customer-contact employees is suggested where more tangible job functions may be matched with big data skills and competencies. Also, follow-up surveys would provide longitudinal insights as to the effect of any training in marketing and industry analytics received on the job, both in terms of significance and in value as rated by employees.

Future research would also benefit from the inclusion of input from academic administrators and faculty responsible for syllabus and course changes. A cross-training approach may have to take place among hospitality academic departments where new decision-making skills are not limited to one specialization. Finally, students should be encouraged to participate in the design and delivery of new courses taking into account diverse learning styles and cultural differences.

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INTERNET AND EXPORT PERFORMANCE: EVIDENCE FROM PORTUGUESE INTERNATIONAL NEW VENTURES

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ABSTRACT

The facilitating effect of the Internet and complementary information and communication technologies on small- and medium-sized enterprises (SMEs) internationalization is now widely accepted. The literature suggests that the Internet positively influences firms' export activities because it provides them with new ways to communicate, to acquire knowledge, to develop their international business network and to improve the efficiency of international transactions and operations. Moreover, emerging Web 2.0 technologies are leading to even more complex international operations. The so-called e-business represents both challenges and opportunities for exporting firms. Given the lack of empirical research into this new paradigm, this research studies professional and business usage patterns of Internet and Web 2.0 technologies and their roles in the pursuit of export market opportunities for Portuguese small- and medium-sized exporters with less than six years of age. Using an online questionnaire, this study is able to identify three ways in which exporting firms use the Internet: as a business tool, as a business enhancer or as a business driver. The empirical results suggest that Portuguese SMEs use the Internet mainly as a business tool, which is essential in the development of export opportunities. Still, using the Internet as a business enhancer and a business driver has a greater impact on firms' export performance. Regarding Web 2.0 technologies, social media has been embraced as a catalyst for export market opportunities development.

Keywords: Internet; Web 2.0; internationalization; exports; SMEs

INTRODUCTION

It is a fact that in recent years important changes in the international business field have been occurring because of the impact of the rapid evolution of information and communication technologies (ICT). In particular, the facilitating effect of the Internet on firm internationalization is now well accepted (e.g. Bell and Loane 2010; Glavas and Mathews 2014; Hamill 1997; Lituchy and Rail 2000; Mathews and Healy 2008).

The Internet's emergence and development provided firms with new ways to establish a global presence, conduct international business, access information, implement marketing and communication strategies, improve the efficiency of international transactions and operations, as well as develop and sustain relationships with clients and partners (Bell and Loane 2010; Fletcher et al. 2004; Glavas and Mathews 2014; Loane 2006; OECD 2001).

The benefits of using the Internet are accessible to firms of all sizes. In fact, the Internet holds particular appeal for small- and medium-sized enterprises (SMEs) (Glavas and Mathews 2014; Hamill et al. 2010) as it diminishes the advantages large multinational enterprises have over small businesses (Lituchy and Rail 2000) and it provides a mean to decrease liability of foreignness and resource scarcity, enabling entrepreneurs to exploit speedily new international opportunities (Arenius et al. 2005). Previous studies indicate that the Internet supports the international expansion and growth of exporters (Bianchi and Mathews 2015; Loane 2006; Lu and Julian 2007; Sinkovics et al. 2013). In view of this, "internetization" emerged as a new concept to refer to the post-Internet internationalization (Etemad et al. 2010).

The impact of the Internet on the international expansion of SMEs has been receiving increasing attention in the literature (Loane et al. 2007). However, most research is largely exploratory and investigates the link between Internet adoption and internationalization from a conceptual view point, so there is a lack of empirical research into the effect of the Internet and the Web 2.0 on firms' internationalization processes and export performance (Bianchi and Mathews 2015; Etemad et al. 2010; Hamill et al. 2010; Reuber and Fischer 2011; Sinkovics et al. 2013).

This research focuses on Portuguese short and medium sized international new ventures (INVs), defined as firms with less than six years from establishment which are already internationalized. The entrepreneurial development in Portugal faces important structural challenges such as discouraging cultural and social norms and the lack of supportive governmental policies. However, advanced physical infrastructure and competent professional infrastructure, as well as the existence of numerous programs and initiatives to support business creation are seen as effective entrepreneurship facilitating factors. According to the Global Entrepreneurship Monitor (2013), the Portuguese entrepreneurial environment has been developing consistently in the past few years. Therefore, we find it interesting to focus on this small, open economy with the infrastructure to support Internet-enabled businesses. This research aims to provide a better understanding of the way Portuguese SMEs in early stages of internationalization pursue export opportunities using Internet and Web 2.0 tools.

THEORETICAL BACKGROUND

The Uppsala Model is one of the mainstream theories of internationalization and for years has been the dominant approach to describe firms' internationalization process. This model views internationalization as a learning process in which the firm increases its international presence in a stepwise manner (Johanson and Vahlne 1990). The stages model emphasizes the role of knowledge, focuses on firm behavior and assumes psychic distance as a dominant concept, which is defined as "factors preventing or disturbing the flow of information between firm and market" (Johanson and Wiedersheimpaul 1975). Foreign market knowledge and incremental international commitment are assumed to reduce the liability of foreignness and to influence decisions regarding firm international trajectory (Johanson and Vahlne 1990).

Internet surpasses some fundamental tenets from the stages model such as the need for physical presence, the psychic distance perception of internationalizing firms (Yamin and Sinkovics 2006) and the role of experiential knowledge (Petersen et al. 2002). Empirical research indicate that the internationalization path of Internet-related firms is not consistent with the Uppsala Model predictions (Bennett 1997; Crick and Spence 2005; Yamin and Sinkovics 2006).

In light of this criticism, Johanson and Vahlne (2009) updated the original model and extended it to incorporate a strong entrepreneurial view of internationalization and to consider the role of networks of relationships and opportunity development. Network relationships are key internationalization facilitators, especially for SMEs with limited resources (Mort and Weerawardena 2006) and they help to reduce the risks of early internationalization (Knight and Liesch 2015). The fact that these business relationships provide firms with knowledge about markets, clients, competition, financing and distribution channels helps internationalizing SMEs to accelerate the learning process (Eriksson et al. 1997; Knight and Liesch 2015) and it influences timing, mode of entry and choice of international markets (Arenius 2005; Johanson and Mattsson 1988). Social and business networks provide entrepreneurs and firms with access to new information, knowledge and ideas which they would otherwise not be able to.

Firms first started to use the Internet for presenting their corporate image using simple and static websites. However, they quickly began to explore the potential of online environment and used it for business and commerce (Berthon et al. 2012). Previous researches find various factors affecting Internet adoption and e-business development by firms: perceived benefits, external pressure, organizational readiness (Mehrtens et al. 2001; Poon and Swatman 1999), clients' influences and the managers' entrepreneurial orientation (Fillis and Wagner 2005).

Nowadays, it is acknowledged that the emergence of the Internet provides firms with new ways to generate new businesses, communicate, develop business networks, exchange information, manage

teams and develop marketing strategies with lower costs (Bell and Loane 2010; OECD 2001; Weill and Vitale 2001). Therefore, the use of the Internet facilitates business internationalization (Etemad et al. 2010; Fletcher et al. 2004; Glavas and Mathews 2014; Loane et al. 2004; Petersen et al. 2002).

The Internet is accessible to firms of all sizes and it is particularly appealing for SMEs that usually face limitations in terms of human and financial resources, as it offers the potential to decrease liability of foreignness, newness and smallness, the advantages of multinational enterprises (Lituchy and Rail 2000) and to reduce barriers associated to international business (Arenius et al. 2005). Thanks to the Internet, firms can take advantage of global web presence and direct and instantaneous foreign-market entry to exploit new international opportunities in a speedy manner (Hamill et al. 2010; Hamill 1997; Loane 2006; Mathews and Healy 2008).

According to Mathews and Healy (2008), “the Internet has diluted the once asymmetry of information traditionally experienced by SMEs in the internationalization process”. In this respect, it minimizes the need for learning-by-doing, reducing search and learning costs and the uncertainty associated with international business (Petersen et al. 2002). Furthermore, some researches suggest that internationalizing firms should promote Internet-based knowledge internalization as a means to reduce their lack of international experience and international market knowledge (Arenius et al. 2005; Nguyen and Barrett 2006). Therefore, Internet usage increases SMEs ability to respond flexibly and speedily to new international opportunities (Glavas and Mathews 2014; Petersen et al. 2002).

The development of sales via the Internet has led to the virtualization of supply chains (Ho et al. 2003) and, along with the emergence of global supply chains, is transforming the distribution of goods and services, firms’ work practices, supply chain relationships and, ultimately, international supply chain management (Ho et al. 2003; Overby and Min 2001).

According to Bianchi and Mathews (2015), the fact that the Internet can be used as a knowledge and resources acquisition tool provides firms with access to export information, which impacts the development of business networks and, ultimately, export market growth. Studies suggest that the Internet is mainly used for communication and marketing purposes, market information collection, post sales service and support activities and not so much for transactional purposes and supply chain management (Loane et al. 2007; Moen et al. 2003). Internet may play a complementary, supportive role in firms’ export activity (Sinkovics et al. 2013).

Thanks to its communicational and transactional capabilities, the Internet can be used as a medium for capturing and developing new international opportunities (Mathews and Healy 2008). This fact leads to the emergence of a new concept: “internetization”, which refers to the “process of increasing adoption, diffusion, and deployment of Internet-based technologies and processes that increasingly

serve as the back bone of internationalization, especially in the innovative entrepreneurial firms” (Etemad et al. 2010).

The literature suggests that, whether used as a supportive tool or as a core capability, the Internet provides SMEs with the chance to improve their international activities and explore international opportunities from inception (Loane et al. 2004), enhancing their export market growth and international expansion (Bianchi and Mathews 2015; Lu and Julian 2007; Petersen et al. 2002; Quelch and Klein 1996). Still, Lal (2004) state that using more advanced e-business tools is associated to a better international performance. So, further investigation and empirical validation is needed. Moreover, studies on the impact of Web 2.0 technologies usage on SMEs internationalization are still lacking (Bell and Loane 2010).

METHODOLOGY

Raymond et al. (2005) conceptualize e-business assimilation (EBA) as “the variety of business functions or activities that are supported by the organization’s use of the Internet and the Web”. So, EBA is operationalized in a number of business activities for which the Internet and the Web can be used. These business functions are grouped into three levels of business adoption: (1) e-communication, (2) e-business intelligence and (3) e-commerce and e-collaboration. EBA is more extensive when the firm uses the Internet for more functions. Moreover, using Internet for internal communication via e-mail is much different from, for instance, using Internet for co-creation activities. The first level of business functions that can be supported by the use of the Internet encompasses communicational and informational functions (Raymond and Bergeron 2008; Raymond et al. 2005). Based on the literature and on Raymond et al. (2005) original model, e-communication is measured by using four Internet uses: marketing and promotion; communicate; online customer service; develop business network. The second group refers to business intelligence functions, i.e. Internet use for competitive intelligence development (Raymond and Bergeron 2008; Raymond et al. 2005). Based on the literature review and the original model, e-business intelligence is measured by using two possible Internet uses: collect international business information and international competition analysis. The last level of business activities for which the Internet can be used refers to transactional and collaborative functions. Based on the literature review and the original model, two Internet uses are considered to measure this variable: buy foreign products/ services; sell products/ services internationally.

Internationalization is a broad and all-encompassing concept that integrates various foreign market entry modes such as exporting, international collaboration and foreign direct investment (FDI). In this study, authors have decided to focus on exports for several reasons. Target population is SMEs in

early stages of internationalization, which theoretically face both resource constraints and external barriers and so tend to rely more often on forms of internationalization that require less commitment, such as exporting activities (Johanson and Vahlne 1977). Second, previous related studies (see Bennett 1997; Bianchi and Mathews 2015; Lu and Julian 2007; Morgan-Thomas and Bridgewater 2004; Petersen et al. 2002) also focus on exporting firms. As such, we focus on exporting firms, by studying their export performance.

Authors have decided to use subjective and generic measures of export performance to encourage managers to respond as there is no need to provide objective financial data that they might not be able or willing to share (Sousa, 2004).

Noneconomic measures (Katsikeas *et al.*, 2000), also called subjective measures (Sousa, 2004), include market diversification, export market expansion and new products exported. According to Katsikeas *et al.* (2000), the number of export markets is the most widely used noneconomic measure. Generic measures (Katsikeas *et al.*, 2000), also called general measures (Sousa, 2004) and non-financial measures (Zou and Stan, 1998) considers the perceptual performance. It encompasses measures such as the managers' perceived success, their satisfaction with the firm's export performance, meeting expectations, and strategic export performance. Cavusgil and Zou (1994) emphasize the importance of using perceptual measures of export success in order to consider not only firm's economic but also strategic objectives, which according to their definition are equally important.

We use two measures of export performance: export intensity and export diversity. Export intensity (export-to-total sales ratio), the most used export performance proxy, is considered in this study not as an objective but as a subjective measure. Since the number of export countries is the noneconomic measure most often used, we also use export diversity as a measure.

Therefore, we propose that the extent that e-business is assimilated by the SME can significantly affect the firm's export performance. This evidence allows us to understand which Internet business functions are connected to greater export ratio and diversity.

So, authors formulate a research hypothesis for each Internet business function impact on firms' export performance. These are subdivided into hypothesis (table 1) regarding the two export performance indicators: export ratio and diversity.

Table 1 – Hypotheses

H1	The greater the use of the Internet for marketing and promotional purposes, the greater the firms' export performance.
H2	The greater the use of the Internet for communication, the greater the firms' export performance.
H3	The greater the use of the Internet for online customer service, the greater the firms' export performance.
H4	The greater the use of the Internet for business network development, the greater the firms' export performance.
H5	The greater the use of the Internet for international business information, the greater the firms' export performance.
H6	The greater the use of the Internet for international competition analysis, the greater the firms' export performance.
H7	The greater the use of the Internet for buying foreign products/ services, the greater the firms' export performance.
H8	The greater the use of the Internet for selling products/ services internationally, the greater the firms' export performance.

In this study, a cross-sectional questionnaire was administered online to a representative sample of Portuguese small- and medium-sized exporters with less than six years of age. According to data collected from SABI database on March 7th, 2016, there were a total of 6.488 Portuguese SMEs exporters with less than six years. We were able to collect 204 valid answers from this universe. Key respondents were firms' entrepreneurs. This questionnaire has 21 questions divided into four modules: (1) firm's profile, (2) export activities, (3) e-business and (4) respondent's characteristics.

RESULTS

Business use of the Internet

Participants use Internet tools more frequently to communicate, to gather international business information and to manage firm's activities. On the other hand, Internet technologies are used less frequently to buy foreign products or services and to analyze international competition.

Half of respondents (50,5%) say they use Internet tools daily or more often to communicate, for instance, with employees, suppliers, distributors, etc., and 29,4% do it a few times a week. A great part of the respondents say they use the Internet as a source of international business related information daily or more often (27,9%) or a few times a week (32,8%). Internet technologies are also frequently used to manage team and to coordinate company international activities (57,1% say they do it a few times a week or more often), as well as to provide online customer service (54,7% do it a few times a week or more often). Regarding advertising, marketing and communication activities, while 51,2% of respondents use digital tools a few times a week or more often for that purpose, 48,8% do it a few times a week or less often.

In relation to the business activities for which Internet tools are used less frequently, data shows that only 15,8% of respondents use the Internet every day for selling products or services internationally, while the majority (33,7%) rarely or never use e-commerce for international sales. More than two-thirds of respondents say they use the Internet a few times a week or less often for international competition analysis or for buying foreign products or services.

Table 2: Kruskal–Wallis and Jonckheere-Terpstra tests statistics

Ind. Variable	Dep. Variable: Frequency of Internet use for...	Hypothesis	Test statistics – Kruskal-Wallis			Test statistics – Jonckheere-Terpstra		
			Chi-square (χ^2)	Asymp. Sig.	Decision	Test Statistic (JTT)	Asymp. Sig.	Decision
Export ratio	Marketing and promotion	H1a	5,292	0,152	Retain H0	6942,5	0,341	Retain H0
	Communicate	H2a	11,826	0,008	Reject H0	9048,5	0,001	Reject H0
	Online customer service	H3a	6,700	0,082	Retain H0	8385,0	0,038	Reject H0
	Develop business network	H4a	2,911	0,406	Retain H0	8116,0	0,096	Retain H0
	Collect international business information	H5a	2,278	0,517	Retain H0	8168,0	0,202	Retain H0
	International competition analysis	H6a	1,881	0,597	Retain H0	8016,5	0,196	Retain H0
	Buy foreign products/services	H7a	2,206	0,531	Retain H0	7526,0	0,744	Retain H0
	Sell products/services internationally	H8a	19,544	0,000	Reject H0	9349,0	0,000	Reject H0
	Crowdsourcing	H9a	3,957	0,266	Retain H0	7591,5	0,362	Retain H0
Export diversity	Marketing and promotion	H1b	6,822	0,033	Reject H0	4086,0	0,009	Reject H0
	Communicate	H2b	1,953	0,377	Retain H0	3804,5	0,179	Retain H0
	Online customer service	H3b	5,825	0,054	Reject H0	4125,5	0,015	Reject H0
	Develop business network	H4b	4,195	0,123	Retain H0	3724,0	0,215	Retain H0
	Collect international business information	H5b	10,305	0,06	Retain H0	4422,0	0,001	Reject H0
	International competition analysis	H6b	20,100	0,000	Reject H0	4587,0	0,000	Reject H0
	Buy foreign products/services	H7b	4,946	0,084	Retain H0	3821,5	0,073	Retain H0
	Sell products/services internationally	H8b	20,238	0,000	Reject H0	4791,0	0,000	Reject H0

This coincides with the results of previous studies (Loane et al. 2007; Moen et al. 2003), firms use Internet mainly for communication and marketing purposes, market information collection, post sales service and not so much for online sales and transactions. However, contrary to what is stated by Loane et al. (2007), low usage is found in terms of competition analysis.

Impact of the Internet on Business

Respondents consider that using Internet technologies facilitates many international business related activities. It helps to reach more potential foreign customers, to develop entrepreneurs' international business network and to overcome problems associated with the lack of knowledge about foreign

markets. However, respondents seem to be less convinced about the positive effect of the Internet on firms' export sales, profits and the number of foreign markets served. These data are very interesting because, as stated in the literature review, information and knowledge collection and the development of network relationships are often highlighted in the literature as essential benefits of the use of Internet for business purposes.

Hypothesis Testing

Since we are dealing with non-normally distributed variables, our data do not meet the assumptions of parametric statistics, so we opted for a non-parametric test. The Kruskal–Wallis rank test using SPSS software was the first choice because we are comparing more than two group. Still, the Jonckheere trend test is more suitable because this rank-based non-parametric test can be used for ordinal data in order to determine if there is a statistically significant trend between an ordinal independent variable and a continuous or ordinal dependent variable (Field 2009). So, authors also apply the Jonckheere-Terpstra test using SPSS software.

Regarding H1a, a Jonckheere-Terpstra test for ordered alternatives shows that there is not a statistically significant trend in the use of Internet for marketing and promotion purposes with a greater firms' export ratio. However, in relation to H1b, a Jonckheere-Terpstra test shows that there is a statistically significant trend of higher frequencies of Internet use for marketing and promotion purposes with higher export diversity, $T_{JT} = 4086,0$, $p = 0,009$ ($<0,05$). This means that although online marketing and promotion has no impact on firms' export ratio, it has a positive impact on the number of export markets served, which is consistent with the results of Mathews and Healey (2008), more specifically, with the idea that Internet's marketing and communication capabilities promote international market expansion.

Regarding H2a, a Jonckheere-Terpstra test shows that there is a statistically significant trend of higher frequencies of Internet use for communication with higher export ratio, $T_{JT} = 9048,5$, $p = 0,001$ ($<0,05$). In contrast, with regard to H2b, a Jonckheere-Terpstra test shows no statistically significant trend in the use of Internet for communicating with a greater export diversity. In line with Lu and Julian (2007), these results show that using the Internet as a communication medium positively influences firms' export performance. However, this happens in terms of export intensity but not export diversity.

Regarding H3a, a Jonckheere trend test shows a statistically significant trend of higher frequencies of Internet use for online customer service with higher export ratio, $T_{JT} = 8385,0$, $p = 0,038$ ($<0,05$). Accordingly, with regard to H3b, the same test shows a statistically significant trend of higher frequencies of Internet use for online customer service with higher export diversity, $T_{JT} = 4125,5$, $p = 0,015$ ($<0,05$). So, we can see that providing online customer service affects both export intensity and

diversity. This can be explained, on one hand, by the fact that the Internet provides firms with the ability to deliver a customized service to potential customers and, on the other hand, by the fact that the existing customers' satisfaction with customer support can translate into a positive e-word-of-mouth (e-WOM) and generate new international business (Mathews and Healey, 2008).

Regarding H4a and H4b, a Jonckheere-Terpstra test shows no statistically significant trend toward greater use of the Internet for business network development being related to greater export diversity or ratio. These results are surprising given that the literature points out that the development of network relationships is one of the most important advantages of the business use of the Internet (e.g. Hamill, 1997; Lu and Julian, 2007; Prashantham, 2005).

Regarding H5a, a Jonckheere-Terpstra test shows that there is not a statistically significant trend in the use of Internet for international business information collection with a greater export ratio. Nonetheless, with regard to H5b, a Jonckheere-Terpstra test shows that there is a statistically significant trend of higher frequencies of Internet use for international business information with higher export diversity, $T_{JT} = 4422,0$, $p = 0,001$ ($<0,05$). Although collecting business-related information through the Internet does not impacts firms' export growth, it does impact firms' export diversity. This was somehow expected given that the easy, inexpensive access to information minimizes the lack of international business experience and facilitates foreign-market entry, promoting faster international market expansion (Arenius et al. 2005; Glavas and Mathews 2014; Mathews and Healy 2008).

Regarding H6a, a Jonckheere-Terpstra test shows no statistically significant trend in the use of the Internet for international competition analysis with greater export ratio. However, with regard to H6b, the same test shows that there is a statistically significant trend of higher frequencies of Internet use for international competition analysis with higher export diversity, $T_{JT} = 4587,0$, $p = 0,000$ ($<0,05$). These results lead us to think that firms whose strategy is to expand to new international markets are using the Internet for international competition analysis, which is a key activity for competitive intelligence development.

Regarding H7a and H7b, a Jonckheere-Terpstra test shows no statistically significant trend toward greater use of the Internet for buying foreign products/ services being related to greater export diversity or ratio. So, online purchasing does not affect firms' export performance, what is not surprising given the low usage of the Internet for buying foreign products/ services.

Regarding H8a, a Jonckheere trend test shows a statistically significant trend of higher frequencies of Internet use for selling products/ services internationally with higher export ratio, $T_{JT} = 9349,0$, $p = 0,000$ ($<0,05$). With regard to H8b, the same test also shows a statistically significant trend of higher frequencies of Internet use for selling products/ services internationally with higher export diversity,

$T_{IT} = 4791,0$, $p = 0,000$ ($<0,05$). These results confirm our initial expectation that online sales would have a great impact on firms' export performance and are consistent with previous studies (see Bianchi and Mathews 2015; Gibbs and Kraemer 2004; Morgan-Thomas and Bridgewater 2004; Sinkovics et al. 2013). Not only a greater use of the Internet is related to greater export intensity, but it also increases the number of export markets.

DISCUSSION

Our results are consistent with Loane et al., (2007) and Moen, Endresen and Gavlen (2003) findings and lead us to agree with Sinkovics et al. (2013, p. 1), who argues that “the Internet may play a complementary role”, i.e., it may be typically used as a support for the existing export activities. Our questionnaire results lead us to conclude that the majority of firms use Internet tools for supporting a traditional export strategy, i.e., they use it, for instance, to communicate, to find international business-related information and to promote the firm, its products and/or services.

In line with Arenius et al. (2005) proposition, the use of the Internet can affect firm's export performance both in terms of export intensity and diversity. However, the multiple Internet business functions affect export intensity and export diversity in different ways. These findings are in line with the work of Preece et al. (1999), with the conclusion that international intensity and diversity were differently affected by a number of variables drawn from International Entrepreneurship (IE) theory. Regarding e-communication practices, using Internet tools for marketing and promotion activities seems to have a positive effect on firms' export performance (H1) in terms of export diversity but it does not affect the export intensity. Using the Internet as a communication medium, in turn, positively influences firms' export intensity (H2). While providing online customer service affects both export intensity and diversity (H3), using the Internet for business network development does not seem to have any impact on firms' export performance (H4), which is surprising given that the development of network relationships has been considered one of the main benefits of the Internet for business (Prashantham, 2005).

With regard to e-business intelligence, collecting business-related information through the Internet does not impact firms' export intensity but it does impact firms' export diversity (H5). Likewise, hypothesis-testing show that using the Internet for international competition analysis seems to enhance export diversification (H6). From this we can deduce that firms with an international market expansion strategy are using the Internet for competitive intelligence development. When it comes to e-commerce, hypothesis testing indicate that online purchasing does not affect firms' export performance (H7). On the other hand, results provide support for H8 which indicates that online sales have a great impact on firms' export performance (both through export intensity and diversity).

CONCLUSION

It is interesting to observe that only two Internet business functions are associated to greater export intensity and diversity at the same time: online sales and customer service. Selling products/ services internationally was expected to be the Internet business function with greater impact on firms' export performance since e-commerce provides a direct channel to export markets and enables firms to reach more potential customers from various foreign markets, as suggested in previous studies (e.g. Bianchi and Mathews, 2015; Gibbs and Kraemer, 2004; Morgan-Thomas and Bridgewater, 2004; Sinkovics et al., 2013). Regarding online customer service, this Internet business activity is closely linked to online sales, so its relationship with firms' export performance is not surprising. Moreover, while pre-sales service can help to capture potential customers, after-sales service can help to retain customers and to promote a positive e-WOM and generate new international business (Mathews and Healey, 2008).

Knowing that the sample firms use the Internet more in terms of e-communication and e-business intelligence than in terms of e-commerce and e-collaboration, it is interesting to note that one of the business functions for which they use Internet less frequently is the one that has greater impact on firms' export performance: selling products/ services internationally.

These results support, in part, the initial proposition that the extent that e-business is assimilated by the SME can significantly affect its export performance because firms that adopt e-commerce practices (which already encompass e-communication and e-business intelligence practices) are expected to have greater export performance. However, we must note that e-collaboration does not impact firms' export performance, which contradicts the proposition. Moreover, e-communication and e-business intelligence by itself also have a positive effect on firms' export performance (even though at a lesser extent).

This lead us to agree with Loane et al. (2004) and Mathews and Healey (2008), who argue that either by improving the communication or by enabling online sales, the Internet is essential for developing international business opportunities. Still, using the Internet as a business enhancer and a business driver has a greater impact on firms' export performance. In the scope of the "internetization" theory (Etemad et al. 2010), our results align with those of previous studies that conclude that committing resources to e-business is vital for any SME that intends to engage in internationalization. In practice, this means that the majority of Portuguese entrepreneurial firms can benefit more from the Internet than they actually do. Our findings are consistent with those of previous studies (Mathews and Healey, 2008) which suggest that the Internet provides firms with new export market opportunities, as well as with the ability to develop them in a flexible and speedily manner. As to policy recommendations, we stress the positive relation found between education and Internet business capabilities, which emphasizes the importance of promoting education and the development of ICT

skills. Furthermore, we find it important to improve awareness of the potential benefits of Web 2.0 tools and to encourage the adoption of e-collaboration practices among businesses.

This study contributes to the literature on internationalization by demonstrating that, as a result of its transforming effects on international operations, the Internet has become a major factor driving the emergence of INVs. Moreover, our research study provides empirical support for the "internetization" theory (Etemad et al. 2010), confirming that e-business has become an integral part of international business and a necessary condition for export market opportunities development. A limitation of this research study is that it does not consider the external context, neither some aspects at the firm level such as the existence of human and financial resources, product/ service characteristics or the international experience or knowledge that also influence firms' export performance and opportunity development. So, it would be interesting to replicate this study, taking environmental and firm-specific factors into consideration.

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SMES PERCEPTIONS ON THE IMPACT OF DIGITALIZATION ON INTERNATIONALIZATION

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ABSTRACT

This paper aims to understand the impact of digitalization on internationalization. It closes a gap in the literature by defining better the benefits and the impact of digitalization on the speed of internationalization regarding the international market evaluation process. Furthermore, it outlines why and how digitalization is important throughout the internationalization process. The paper opted for a multiple case-study research design using different sources of evidence, including 51 responses from senior managers of lean, global, start-up firms (LGS). The revised Uppsala internationalization process model was used as the theoretical framework to analyze the impact of digitalization on the speed of the LGS internationalization. The paper provides empirical insights about the impact of digitalization on the speed of LGS internationalization. Digitalization allows LGS to increase decision-making efficiency and to optimize international market evaluation strategies and processes. It suggests that international managers act as “integrating forces” on several levels: by applying a disciplined and structured internationalization process with regular reviews, by mediating between local market realities and corporate goals, understanding the limits and benefits of digitalization, and optimizing decision-making. The findings are relevant for researchers and scholars, who support activities that promote digital engagement, to understand better the impact of digitalization on the speed of LGS internationalization. This paper fulfills an identified need and a call for research to study the impact of digitalization on the speed of LGS internationalization.

Keywords: International business, international management, big data analytics, artificial intelligence, machine learning, global marketing, international business development, international entrepreneurship, lean global start-up, digitalization.

INTRODUCTION

LGS need to understand the impact of digitalization on internationalization. Digitalization of internationalization processes especially helps LGS with limited resources to internationalize earlier and faster, which finally means that they need fewer resources to reach their business goals.

Digitalization helps LGS collect and analyze data about international markets to speed up decision-making processes. The impact of digitalization is especially high in foreign markets, because LGS needs to create knowledge and to develop networks there to operate successfully. The speed of creating this intellectual and social capital determines the speed of internationalization. Because LGS often are pioneers and global market leaders in a small, global, market niches, early and fast internationalization is necessary to be competitive. Pricing is one example. LGS need to understand their own costs, as well as market prices and their products' value, to select correct prices and pricing models (Neubert, 2016a; 2017b).

The purpose of this study is to identify the impact of digitalization on the speed of LGS internationalization. The paper's rationale is to close a gap in the literature and to understand better the benefits and impacts of digitalization on the speed of internationalization. The paper proposes modeling an international market evaluation process and outlines why and how digitalization is important throughout [the whole process]. It aims to expand the study of international management by including a deeper and broader range of digitalization aspects than is normally found in the international management literature.

A call for research by Coviello, Kano, & Liesch (2017) and Vahlne & Johanson (2017) provided impetus for this study. Their papers called for further research about the impact of digitalization on internationalization research. Digitalization is instrumental in facilitating earlier and faster internationalization through digitalized knowledge, network creation, and decision-making processes. Therefore, it should be addressed through qualitative research methods, for example, multiple case studies. (Vahlne & Johanson, 2017). Merkert, Mueller, & Hubl (2015) also stress the need for further research about the usefulness of machine learning (ML) for decision-making purposes. Their findings suggest that the advantages of ML in decision-support systems are higher effectiveness and reduction of manual work.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The theoretical framework of this study is based on a review of the literature regarding the Uppsala internationalization process model (Vahlne & Johanson, 2017; Coviello, Kano & Liesch, 2017) and LGS firms (Neubert, 2017; Tanev, 2017).

The Uppsala Internationalization Process Model

In 1977, Johanson and Vahlne developed the Uppsala internationalization process model (Vahlne & Johanson, 2017), which became the most popular theoretical framework of the first stages of internationalization (Santangelo & Meyer, 2017; Neubert, 2015) and probably also the most challenged

(Håkanson, & Kappen, 2017). Their most important finding was that firms enter new markets using a so-called establishment chain. In the first step of this gradual internationalization process, firms enter geographically and culturally closer markets. Therefore, they mainly use market-entry modes with low risk and low resource requirements. Typical examples are “direct export,” “licensing,” or “franchising.” Often LGS collaborate with local partners such as importers, licensees, or franchisees, which dispose of local market knowledge and client networks (Neubert & Van Der Krogt, 2017). With growing international success, networks, and market information, LGS might increase their market commitment through additional resources. Thus, they might establish a wholly-owned subsidiary or enter more distant foreign markets. Certainly, if market attractiveness decreases, the level of commitment to a foreign market might also change, leading to outcomes such as lower investments to or exit from this market (Vahlne & Johanson, 2017; Neubert, 2013b).

Johanson and Vahlne’s second finding is about the liability of foreign ownership. LGS need numerous specific advantages in every international market to compensate for the liability of being a new competitor in the market without contacts, clients, or market knowledge. The larger the economical, geographical, administrative, and cultural distance between foreign and home markets, the larger the liability of being a foreign-owned company, and the larger the required number of advantages (Vahlne & Johanson, 2017). Local partners, such as importers, licensees, or franchisees, help to bridge these differences. Internationalization speed depends on the rapidity of knowledge creation (Vahlne & Johanson, 2017), learning (Neubert, 2017), and network creation in every new foreign market. In all foreign markets, this means that a LGS must be able to transfer its firm-specific advantages to a network of relevant and sustainable competitive advantages in a dynamic, permanently changing environment, to compensate for its status as an outsider (Vahlne & Johanson, 2017). Thus, a firm needs to develop its intellectual capital permanently through knowledge creation and its social capital through network creation in every market.

In most cases, internationalization requires a dynamic capability, but for firms with past international experience, the process is easier if the firms build on proven managerial practices (Neubert, 2017; Vahlne & Johanson, 2017). In this sense, internationalization can become an advantage (Neubert, 2013a).

The Lean Global Start-up Model

An LGS is a new type of firm (Tanev, 2017; Neubert, 2017a). Compared with a born-global firm (BGF), an LGS creates a new market niche, using innovative technology and a new business model (Tanev, 2017). Its internationalization strategy is developed in advance and it is part of its initial business plan (Tanev, 2017). An LGS implements a business plan in incremental and iterative product cycles (Tanev, 2017), developing modest, viable products that are tested in the market (Neubert, 2017a). Because of the

immediate feedback in this process, products and services can be quickly adapted to market needs (Tanev, 2017).

LGS often start their global operations through up-stream activities (e.g., R&D and co-innovation with global partners) before engaging in downstream activities (e.g., market development, pricing, and export) (Neubert, 2017b). In this sense, LGS are new, international ventures (INV), rather than a BGF (Neubert, 2017a). However, the case studies in this research project are classified as LGS because they use a lean internationalization process (compare to figure 1) for their market development activities, within the framework of the Uppsala internationalization process model (Neubert, 2011; 2013a; 2017a).

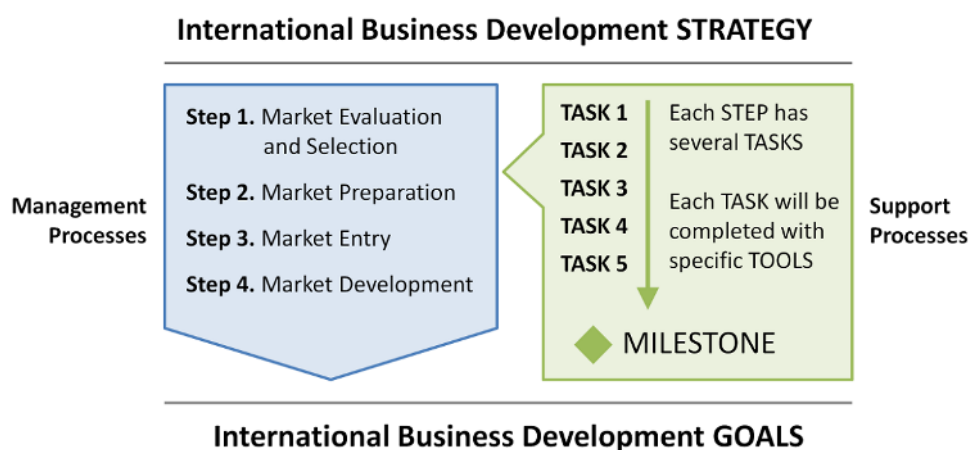


Figure 1. Example of an international market development process (source: Neubert, 2017a)

Digitalization of International Market Development

Digitalization creates online platforms and exchanges involving economic (e.g., Alibaba and Amazon) and social (e.g., LinkedIn) transactions (Coviello, Kano, & Liesch, 2017) to identify efficient sales opportunities in new foreign markets. These platforms and exchanges offer tools and information (e.g., logistical support, export insurance, export documentation, and financing) to execute these sales opportunities.

Digitalization also increases the effectiveness and reduces the manual work of decision-support processes (Merkert, Mueller, & Hubl, 2015; Holsapple, Lee-Post, & Pakath, 2014). Traditional data-driven and fact-based decision-making processes increase the productivity and profitability of companies by 5–6% compared to their competitors (Bohanec, Borštnar, & Robnik-Šikonja, 2017). Companies using prescriptive, analytics-based, ML algorithms increase their revenues by more than 15% (Kawas, Squillante, Subramanian, & Varshney, 2013).

Digitalization creates social data (market networks) and intellectual data (market knowledge) about foreign markets earlier and faster than other methods, while also improving firms' attractiveness, decision processes, and decision makers (Clark, Li & Shepherd, 2017). While decisions are often based

on historical data or on experiences from other markets, a new market entry is a long-term investment in the future attractiveness of an untested foreign country (Neubert, 2017a; Dedić & Stanier, 2016). If an LGS decides to enter a new foreign market in 2018, the decision is often based on historical market data (2016 and earlier), but the effects of the decision (e.g., significant new clients and sales revenues) will take place approximately two years later. Therefore, predictive algorithms should be used to assess future markets' attractiveness. Although predictive algorithms cannot eliminate uncertainty, they can improve allocation of resources and prioritizing of projects. International managers must manage digitalization carefully by mediating between local market realities and corporate goals and understanding the limits and benefits of digitalization (Ransbotham, Kiron, & Prentice, 2015). Early warning systems that once would have taken years to create now can be rapidly developed and optimized from real-world data. To assess the usefulness of prediction models, we must evaluate them not on their ability to recapitulate historical trends, but instead on their accuracy in predicting future events.

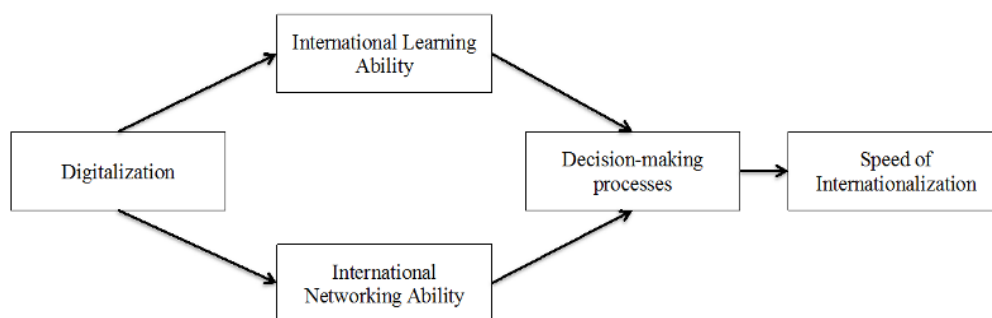


Figure 2. How digitalization might impact the speed of internationalization (source: author)

RESEARCH METHODOLOGY

The choice of the research method is based on the purpose of this study. A multiple case-study research method was used to contrast and compare subject-matter experts' (SMEs') perceptions about the impact of digitalization on LGS internationalization (Yin, 2015). In contrast to a survey or an experimental design, a multiple case study allows in-depth analysis of complex research problems within a highly-contextualized environment (Rosenberg and Yates, 2007), has more flexibility (Stake, 2010), and allows comparison across cases (Baxter and Jack, 2008).

The data collection is based on 51 semi-structured, in-depth interviews with SME, the senior managers of an LGS as source of evidence. The SME interviews were conducted in September and October 2017. The data were collected using an online questionnaire. Firms in the case study were purposefully selected from a representative sample. The reliability criteria were met by using the same questionnaire, the same study protocol and the same data structure in the data-collection phase.

To develop categories and patterns and identify differences and consistencies in the data, data analysis was based on a grounded theory. Based on our research goal, the data analysis followed a logical sequence starting with an individual case analysis, followed by a cross comparison to identify similarities and differences and finally a literal and theoretical replication using a pattern-matching approach. The goal of this approach is to increase the possibility to transfer and to generalize the findings to other contexts.

The purpose of the study has led to the following research question: what are the perceptions of SMEs about the impact of digitalization on LGS internationalization?

FINDINGS

To answer this research question, the results of this multiple case study are presented in this chapter. Analysis of the data collected from in-depth, semi-structured, qualitative SME interviews revealed the following findings:

Traditional data-driven and fact-based decision-making processes increased the productivity and profitability of companies by 5–6% compared to their competitors (Bohanec et al., 2017). Companies using prescriptive, analytics-based ML algorithms increased their revenues by more than 15% (Kawas et al., 2013). This survey's results partially confirmed the results in the literature. The 51 SMEs in this survey expected significant improvements of digitalization in productivity, profitability, revenue growth, and cost reductions (compare to table 1).

51 SME responses (number / percentage)	No impact (0%)	Improvement (1–5%)	Improvement (6–10%)	Improvement (> 10%)
Productivity	5 (9.8%)	13 (25.5%)	22 (43.1%)	11 (21.6%)
Profitability	2 (3.9%)	15 (29.4%)	21 (41.2%)	13 (25.5%)
Revenues	2 (3.9%)	14 (27.5%)	23 (45.1%)	12 (23.5%)
Cost reductions	8 (15.7%)	22 (43.1%)	18 (35.3%)	3 (5.9%)

Table 1: Impact of Digitalization on LGS Internationalization (source: the author)

For the further analysis, we wanted to understand which SMEs expected the greatest positive impact. Therefore, we divided the 51 SMEs into four clusters depending on their level of digitalization of international market development activities (compared to Table 2).

Cluster Number	Number of SME	Level of digitalization of international market development activities
1	Four (4)	These SMEs are currently digitalizing their international market development activities.
2	Nineteen (19)	These SMEs are planning to digitalize their international market development activities.
3	Twenty-three (23)	These SMEs are interested in digitalizing their international market development activities.
4	Seven (7)	These SMEs are not interested in digitalizing their international market development activities.

Table 2: SME Clusters depending on the Level of Digitalization (source: the author)

The analysis of the four clusters shows that only four (8%) SMEs currently digitalize their international market development activities. The majority of the SMEs is interested (45%) or is planning (37%) to digitalize their international market activities. Only seven (14%) of all SMEs are not interested in digitalizing their international market development activities, because they do not see any concrete benefits or use cases.

The data analysis also shows that SMEs in Cluster 4 often do not expect any significant impact. The highest impact is expected from SMEs of Cluster 3, followed by the SMEs of Clusters 1 and 2. This result shows that SMEs only interested in digitalizing their international market development activities (Cluster 3) expect the highest impact from digitalization of LGS internationalization. This enthusiasm, with expectations higher than actual results, often is caused by digitalization projects still in the implementation and optimization phase, which do not exploit the full potential of international digitalization yet. Further analysis of the data shows that SMEs in Cluster 1 have the greatest experience and knowledge about international digitalization, followed by clusters 2, 3, and 4 (e.g., positive correlation between knowledge, experience, and application).

56% of all SMEs expect the highest economic benefit derived from digitalization in strategic planning and controlling, and 53% in the international market development process. This includes the acquisition and development of clients and distribution partners in steps 2 and 3 (= more efficient network creation), and the evaluation and selection of new foreign markets in step 1 (see Exhibit 1) based on a more efficient creation of market knowledge. SMEs understand digitalization as an improved usage of internal and external data to analyze their current situation and to predict the future attractiveness of foreign markets. This helps them analyze future market developments, make faster and better-informed decisions, allocate resources more efficiently to different markets, and react more quickly to market changes.

Optimization of the international market development process (see Exhibit 1) focuses mainly on reducing client acquisition costs by increasing the efficiency of marketing and acquisition activities (e.g., higher conversion rates and client retention). Here SMEs expect to receive additional information about the probability of cross-selling, reselling, and up-selling, as well as client retention (Neubert, 1998).

SMEs expect higher efficiency in all international market development processes to internationalize earlier and faster. Furthermore, they plan to develop internationalization into a core competency, which might offer them a competitive advantage as soon as they understand the benefits and limitations (Ransbotham et al., 2015).

CONCLUSIONS

This study provides additional evidence about the impact of digitalization in LGS internationalization, using the Uppsala internationalization process model and the LGS concept as theoretical frameworks. The method is a multiple case-study research design. The data are collected through SME interviews as a primary source of evidence. Grounded theory is used to analyze the collected data.

The findings show that SMEs see a significant impact of digitalization on LGS internationalization. This result confirms the findings of other studies (Neubert, 2018; Bohanec et al., 2017; Kawas et al., 2013). Digitalization allows LGS to create knowledge and networks at a faster rate, increasing the efficiency of decision-making processes and finally the speed of internationalization. In detail, digitalization increases the efficiency of decision-making processes using internal and external data to predict future market development, allowing LGS to act on several levels: by applying a structured and disciplined internationalization process (Neubert, 2011) with regular reviews, by mediating between local market realities and strategic goals, understanding the limits and benefits of digitalization, and optimizing decision-making processes due to better information (Ransbotham et al., 2015).

The practical and research implications for scholars, researchers, managers, and policy makers who support activities that promote digitalization, are to better understand the impact of digitalization on LGS internationalization speed, to increase the efficiency of decision-making processes, and to optimize international market evaluation strategies, processes, training, and (financial) support projects.

While offering new ideas for future research, a multiple case study research design has several limitations in scope and size. Future scholarly work should include quantitative assessments of SMEs' perceptions with qualitative and quantitative data to provide greater clarification of the statistical significance of the study's variables or replicate it with other case-study firms belonging to different countries or industries and at different stages of development.

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IMPACT OF BUSINESS INTELLIGENCE ON EXPORT OF SOFTWARE FIRMS IN EMERGING MARKETS

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ABSTRACT

The paper aims to understand the impact of business intelligence on Paraguayan ICT firms' export performance. It adopted a multiple case-study research design using different sources of evidence, including 15 responses from subject-matter experts (SMEs). They were selected using a purposive sampling method. Data collected in November 2017 were analyzed using grounded theory to develop patterns and categories, and to understand differences and consistencies. The revised Uppsala internationalization process model is used as a theoretical framework. This paper provides empirical insights on the impact of business intelligence on the export performance of ICT firms in Paraguay. Although only a few SMEs currently use business intelligence solutions to support international strategic decision-making processes, the majority indicate their intention to use them in expectation of positive impact on export performance and international competitiveness. The main factors for selecting a business intelligence solution are transparency of cost and benefits, an excellent client service and an attractive pricing model. The study results are relevant for all stakeholders, who support the impact of business intelligence systems on the export performance of Paraguayan ICT firms. Future scholarly work should include quantitative assessments of SME perceptions and quantitative data to provide greater clarification of the statistical significance of the variables of this study or to replicate it with other SMEs from different industries and countries. The paper fulfils an identified need and a call for research to study the use and impact of business intelligence on export performance and the competence to globalize Paraguayan ICT firms.

Keywords: International business, international management, international entrepreneurship, global marketing, emerging markets, business intelligence, machine learning, artificial intelligence, Paraguay, software industry.

INTRODUCTION

There is a need for Paraguayan ICT firms to understand the impact of business intelligence on export performance. Paraguay's open economy is home to a few innovative ICT firms (Neubert & Van Der

Krogt, 2017). Paraguayan ICT firms need speed to get their new products to international market to refinance their research and development cost (Neubert, 2016b). These firms use business intelligence comprising strategies and technologies to collect and analyze foreign markets data and predict their future attractiveness (Dedić & Stanier, 2016). Business intelligence helps in increasing the speed of internationalization by gaining knowledge, creating networks about new foreign markets with limited resources, increasing efficient decision making during market evaluation and selecting the most attractive foreign markets. Further applications such as international pricing decisions (Neubert, 2017b) or the acquisition of domestic distributors might benefit from the use of business intelligence systems. Thus, the Paraguayan ICT sector might counter future competitiveness using business intelligence to develop international markets.

This study aims to understand the use and expected impact of business intelligence on Paraguayan ICT exports and internationalization activities of firms. This paper contributes to the literature to better understand the use, benefit, and impact of business intelligence on export performance and internationalization. It proposes a modelling evaluation framework for the international market and outlines the importance of business intelligence in the whole process. The study includes broader aspects in addition to those found in the study of international entrepreneurship and business intelligence.

This study is part of research by Coviello, Kano & Liesch (2017) and Vahlne & Johanson (2017) and continues the research of Neubert & Van Der Krogt (2017). Their papers call for further research about the impact of business intelligence on internationalization. Vahlne & Johanson (2017) suggested that this need should be addressed through qualitative research methods like for example multiple case-study research. Owing to the need for expeditious internationalization (Neubert & Van Der Krogt, 2017), the expected impact of business intelligence might be important for Paraguayan ICT firms as an example for high-tech firms from emerging markets (Neubert & Van Der Krogt, 2017), which is the main motivation for this study.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In 1977, Johanson and Vahlne developed the Uppsala internationalization process model (Vahlne & Johanson, 2017), which became the most popular theoretical framework of the first stages of internationalization (Santangelo & Meyer, 2017; Neubert, 2015) and probably also the most challenged (Håkanson, & Kappen, 2017; Santangelo & Meyer, 2017). Their most important finding was that companies like ICT firms enter new foreign markets using a so-called establishment chain (Vahlne & Johanson, 2017). As the first step of this step-by-step internationalization process, Paraguayan ICT firms enter culturally and geographically closer markets such as Brazil, Bolivia, or Argentina with low-risk

and low resource-consuming market-entry modes, such as 'service export' or 'software licensing', mostly in collaboration with domestic distributors (Neubert & Van Der Krogt, 2017; Neubert, 2017a). With growing success, Paraguayan ICT firms might increase their presence in these markets, establishing, for example, a wholly owned subsidiary or acquiring their domestic distributor (Neubert, 2013b). In parallel, they also might begin to enter more distant foreign markets such as Chile and Mexico or follow their existing key account clients to even more distant markets. The allure of foreign markets is often volatile. It might change quickly due to the acquisition of a new client or the loss of an established sales channel, leading also to outcomes such as a decreasing market commitment (Clarke & Liesch, 2017) or even a market exit (Neubert, 2011; 2013a).

Johanson and Vahlne's second finding is about the liability of foreignness and outsidership (Vahlne & Johanson, 2017). Paraguayan ICT firms need a bundle of firm-specific competitive advantages in every foreign market to compensate the liability of foreignness and outsidership. The larger the economical, geographical, administrative, and cultural distance between the foreign target market and the home market, the larger the liability of outsidership and foreignness, and the larger the need for firm-specific competitive advantages (Vahlne & Johanson, 2017). Domestic distributors help Paraguayan ICT firms to bridge these differences. They might help Paraguayan ICT firms to adapt their product features, pricing, marketing communication, or terms of doing business (e.g. payment conditions and warranties). In addition, they might offer services like import, legal & compliance advice, logistics (including storage), client acquisition and service, and accounts receivable management (Neubert, 2017; 2016a). Thus, the speed of internationalization depends on the speed of knowledge and network creation (Vahlne & Johanson, 2017; Neubert, 2017a; 2016b) in each new foreign market, preferably with the support of a local partner.

The Uppsala internationalization process model is chosen as theoretical concept, because it has been adopted by all Paraguayan ICT firms of this sample to develop the neighboring foreign markets (Neubert & Van Der Krogt, 2017). Paraguayan SMEs consider speedy internationalization as important for the long-term survival of their ICT firm due to the limited size of their domestic home market (Neubert & Van Der Krogt, 2017). However, they often are confronted with significant delay in the execution of their international market development activities in comparison to the time planned in their business plans (Neubert & Van Der Krogt, 2017). The main reason is an often unplanned and unstructured internationalization behavior (Neubert & Van Der Krogt, 2017). Paraguayan ICT firms often enter new foreign markets based on their existing networks and clients by using market opportunities or by following existing clients without analyzing the attractiveness of new foreign markets in detail (Neubert & Van Der Krogt, 2017). SMEs understand that this reduces the speed of international market development. They acknowledge the importance of a structured market

development process starting from a detailed evaluation and selection of foreign markets before they actually enter them (Neubert & Van Der Krogt, 2017). All SMEs understand that their capabilities are crucial for their international success. The faster they learn how to do business and to acquire customers in new foreign markets, the higher the speed of internationalization will be (Neubert & Van Der Krogt, 2017). This is especially challenging for Paraguayan ICT firms, because they internationalize from an emerging to an often higher developed market (Buckley, Doh, & Benischke, 2017).

Digitalization supports ICT firms to collect social data (market networks) and intellectual data (market knowledge) about foreign markets faster than with other methods. Digitalization improves decision processes, and the ability of decision makers to decide (Neubert, 2018; Clark, Li & Shepherd, 2017). It also increases the effectiveness and reduces the manual work of decision-support processes (Merkert, Mueller, & Hubl, 2015; Holsapple, Lee-Post, & Pakath, 2014). Traditional data-driven and fact-based decision-making processes increase the productivity and profitability of companies by 5–6% compared to their competitors (Neubert, 2018; Bohanec, Borštnar, & Robnik-Šikonja, 2017). Companies using prescriptive, analytics-based, ML algorithms, for example to compute the future attractiveness of international markets (Neubert, 2017a; Dedić & Stanier, 2016), increase their revenues by more than 15% (Kawas, Squillante, Subramanian, & Varshney, 2013), if international managers understand to the benefits of digitalization (Ransbotham, Kiron, & Prentice, 2015).

RESEARCH METHODOLOGY AND RESEARCH QUESTIONS

The purpose of this study has brought up the following three research questions:

- Research Question 1: What are the perceptions of SMEs about the use of business intelligence?
- Research Question 2: What are the opinions of SMEs regarding the expected impact of business intelligence on export performance and internationalization?
- Research Question 3: What are the views of SMEs about the factors that determine the use and the selection of business intelligence services?

The choice of research method is based on the purpose of this study. This study uses a multiple case-study research design to answer the explanatory research questions (Yin, 2015). In contrast to an experimental design or a survey, a multiple case study method presents more flexibility, allows an in-depth analysis of a complex research problem (Yin, 2015) within a highly contextualized environment and allows for a comparison between different cases. This research design helps answer the research questions because it allows the use of the replication logic as a possibility to obtain external and internal validities as well as to analyze pattern-matching properties between theories and cases (Yin, 2015).

This study used different sources of evidence to derive robust conclusions and to achieve construct validity. Therefore, we applied the triangulation concept to the data collection phase to guarantee that different sources of evidence were used to collect data from each case. The primary source for data collection comprised qualitative, semi-structured, in-depth, individual face-to-face interviews with SMEs. The SMEs are all founders and/or CEOs of Paraguayan ICT firms with significant international management experience and higher education. Their ICT firms focus on the development of products and services for niche markets, which can compete at domestic and foreign markets (Neubert & Van Der Krogt, 2017). Other sources of evidence were firm and product flyers and brochures, corporate website, internal documents provided by the SMEs and other secondary data. The data were collected in October and November 2017. The reliability criteria were met by using the same questionnaire, the same study protocol and the same data structure in the data collection phase. The duration of the SME interviews was in average 90 minutes.

The data analysis followed a logical sequence, starting with an individual analysis of each interview, followed by a cross comparison of the results to identify differences and similarities between the answers of the different SMEs, and finally a theoretical and literal replication using a pattern-matching approach. The main goal of this approach is to increase the possibility to transfer and generalize the findings to other contexts.

The choice of the sampling strategy is based on the purpose of this study that uses a purposive case selection strategy. After drawing a random sample from a database of 60 Paraguayan firms, which are active in the software services sector, 15 typical cases of the sample exporting software products were selected. According to Yin (2015), if at least 6 to 10 cases are selected, this sampling strategy produces a statistically representative sample. Data saturation was achieved with 15 SME interviews. This higher than required sample size allows for a better triangulation of data and helps to strengthen the results of the whole study (Yin, 2015).

FINDINGS

The results of this multiple case study are presented to answer the research questions individually.

Answer to Research Question 1

The analysis of the data collected from the in-depth, semi-structured, qualitative, face-to-face SME interviews revealed the following findings answering the first research question:

What are the perceptions of SMEs about the use of business intelligence?

Only one (7%) of the SMEs uses internationalization theories, country market data and predictive analytics in the form of market studies to evaluate the attractiveness of foreign markets. According to

the SMEs, the limited use of big data and predictive analytics in strategic decision-making can be explained by the incipient stage of the use of business intelligence in Paraguay as an emerging economy in general. At this moment, business intelligence strategies are still confined to the few larger – multinational – companies in the telecommunications and financial sector. While macroeconomic data are mostly available, there are very limited sector-specific data available in industry and services sectors, as indicated by most SMEs. Business intelligence and especially big data analytics is therefore still in a premature stage and difficult to use to support business objectives in Paraguay. The majority of the SMEs mention that this is further complicated by a lack of data analysis and interpretation capacity in the country.

Despite more advanced availability of macro-economic and sector-specific data in other countries such as Brazil and Mexico and in developed countries, the situation in Paraguay affects the knowledge, experience and expectations of data usage for internationalization in industry and services. In the specific case of the ICT sector, the study indicates that a majority of the companies do not have sufficient knowledge (40%) and experience (35%) to make effective use of business intelligence in general and predictive data in particular. Among the Paraguayan ICT firms, only one company is currently using predictive data to identify foreign market opportunities. Other companies indicate that the limited use of data is partially explained by a lack of time to study and apply it. Therefore, effective use of predictive data would require companies to allocate time and training resources.

The main finding of research question 1 is that only a minority of SMEs and their ICT firms currently use business intelligence solutions in terms of big data and predictive analytics to support international strategic decision-making processes like foreign market evaluation and selection, which supports the findings of Neubert, 2018.

Answer to Research Question 2

The analysis of the data collected from the in-depth, semi-structured, qualitative, face-to-face SME interviews revealed the following findings that answer the second research question:

What are the opinions of SMEs regarding the expected impact of business intelligence on export performance and internationalization?

Despite of the current knowledge and experience, nine (70%) of the SMEs are interested in using business intelligence in terms of big data and predictive analytics to support their internationalization strategy in the short term. Eleven (85%) of the SMEs can envisage using business intelligence in terms of big data and predictive analytics in the long term because they are currently identifying new foreign market opportunities and want a better insight in the market potential. However, it is prudent to observe that the SMEs also reveal that the actual acquisition and usage of predictive data may be rather

limited due to time constraints and low willingness to pay for data services, combined with high expectations of the integrality and flexibility of data sets.

The research provides some hints about the perceived short-term impact of business intelligence in terms of big data and predictive analytics on sales. In the short term, the SMEs indicate that predictive data can assist mainly in the identification of new markets, market segments, leads and clients. It can also assist in better planning, management and control of sales. To a lesser extent, the data are thought to be useful to choose sales channels and sales funnel optimization. They also feel that business intelligence in terms of big data and predictive analytics are less effective to increase loyalty and sales volume of the existing clients.

The SMEs expect an even stronger long-term impact on productivity and profitability of international operations. About 77% can envisage more than 6% increase in profitability and growth and 54% of the SMEs indicate more than 6% in productivity increase. As much as 85% of the SMEs expect these improvements because of a better forecast of the service needs of existing clients. A large majority of the participating companies also indicate a potential contribution by better calculations of the attractiveness of foreign markets, predictions of market developments in specific subsectors and mitigation of market risks. The companies' expectations with regard to contribution to reduction in costs, forecasting of revenues, price developments and competition are fewer. A majority of 62% of the SMEs expected an improved sales process in terms of improved efficiency of sales negotiations, a faster and better decision making and a reduction of sales risks. Almost half of the SMEs can imagine that business intelligence in terms of big data and predictive analytics will contribute to an increased turnover per client, improved relationship with clients and more motivated salespeople.

The main finding of research question 2 is that the majority of SMEs wants to use business intelligence in terms of big data and predictive analytics because they believe that there is a significant positive impact on export performance and on their competitiveness in international market development. This believe of the SMEs is supported by the current literature. According to Bohanec et al. (2017) and Kawas et al. (2013), the use of business intelligence provides an impact on revenues, productivity, and profitability.

Answer to Research Question 3

The analysis of the data collected from the in-depth, semi-structured, qualitative, face-to-face SME interviews revealed the following findings to answer the third research question:

What are the views of SMEs about the factors that determine the use and the selection of business intelligence services?

When considering the use of a business intelligence service in terms of big data and predictive analytics, the SMEs are inhibited by a diverse set of assumptions. SMEs are concerned about a lack of

support in configuration and an unclear selection and processing and evaluation of data (= black-box-effect). They further assume inflated cost of data services in relation to the small size of their business. SMEs also consider obscure benefits and a lack of specific relevance for the software sector and a lack of motivation of the client to collaborate in using predictive data. Contrary to what could be expected, fewer SMEs are worried about the management of the software and training of employees.

To select a business intelligence platform to support internationalization the SMEs will mainly consider a business intelligence solution that responds to the expected problems mentioned earlier. Over 85% of the SMEs would choose based on an excellent after-sales client service that accompanies the company in the use of the service. SMEs will consider recommendations and references by existing clients. They further expect a low price that reflects their limited size of business, along with a high level of flexibility and integrality. Fewer SMEs are concerned about the size and reputation of the provider and additional services as professional training and consulting services.

The main finding of research question 3 is that the main factors that determine the use and the selection of business intelligence services are transparency of cost and benefits. Further, SMEs expect an excellent client service and an attractive pricing model.

CONCLUSIONS

This paper fulfils an identified need and a call for research to study the use and the impact of business intelligence on export performance and the competence to internationalize Paraguayan ICT firms. The study provides additional new evidence about the possible impact of business intelligence on the export performance of Paraguayan ICT firms using the Uppsala internationalization process model as the theoretical framework. The research method is a multiple case-study research design. Data are collected through 15 SME interviews as a primary source of evidence. Grounded theory is used to analyze the collected data.

The answer to research question 1 is that only a minority of SMEs and their ICT firms currently use business intelligence solutions in terms of big data and predictive analytics to support international strategic decision-making processes like foreign market evaluation and selection.

The answer to research question 2 is that the majority of SMEs indicate their intention to use business intelligence in terms of big data and predictive analytics because they believe there is a significant positive impact on export performance and on their competitiveness in international market development.

The main finding of research question 3 is that the main factors that determine the use and the selection of business intelligence services are transparency of cost and benefits. Further, SMEs expect an excellent client service and an attractive pricing model.

The results are relevant for policy makers, researchers, and international managers, who support all kind of activities that promote engagement into the development, training, and application of business intelligence systems because they better understand the impact of business intelligence on the export performance and internationalization of Paraguayan ICT firms. The results are highly relevant for the future competitiveness of the entire Paraguayan ICT sector and should motivate all stakeholders to continue this research stream.

This multiple case-study research design has several limitations in scope and size that offer new ideas for additional research. In view of the character of this qualitative study, the generalization of findings is not possible. Therefore, future scholarly work should include quantitative assessments and data of SME perceptions to derive at solid conclusions and to provide greater clarification of the statistical significance of the variables of this study or to replicate it with other ICT firms from different country markets.

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HOW TO MOTIVATE SALESFORCE THROUGH THE LAUNCH OF A NEW PRODUCT BY CHOSING A PROPER LOCATION

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ABSTRACT

The study aims to demonstrate how different locations where presenting a new product can change the overall impression of the product itself on the sales people.

The experiment was done in occasion of the presentation of a new motorcycle. A group of dealers has been invited to a nice location in Spain, at Lloret de Mar, two persons from the Headquarter of the Company presenting the bike were present to run the presentation, together with an outsourced trainer.

The same presentation, has been delivered also in Italy, in 4 locations often used to run business meetings with dealers. In the end of all days of the presentation dealers had to fill a questionnaire. The result of the questionnaire showed how the group invited in Spain rated much higher the new bike compared with the dealers testing the bike in locations already known and close to their home. So, in terms of business strategy, it is important to take into account how the location and way of presenting any product or service can have a favourable impact on the people we want to convince. The next step of the experiment will be to cross check the sales of that bike with the dealers and measure if there is a relation between the top sellers and the one that appreciated the bike the most, in Spain. . It would mean that they were able to transfer to customers the same good feelings and impressions they had in Spain.

Keywords: salesforce motivation, new product presentation, locations, emotional effect, business strategy

INTRODUCTION

The Sales Force motivation is a key topic, analysed and discussed over the years by marketers, psychologists and neurosales experts, starting from one very famous theory regarding motivation i.e. the Maslow's Hierarchy Pyramid, going to the Herzberg's two-factor theory of motivation and to Douglas McGregor.

The role of the salesman experienced a big change, and evolution that followed the trends of the economy. From the demand generation, to the consultancy towards the customer, back to the basics in a period of economic stagnation.

Apart from the evolution in the role and expectations of the society towards a salesman, the changes have affected also his methods and available tools to deal with customers.

If now the salesman owns tools to be used to select the correct profile of customer and to contact him, we do not have to forget that also customers have got tools, mainly technology, to gather a lot of information and to be then more “educated” than in the past.

In this way the role of salesman has become more and more difficult. Barriers and objections of customers are more frequent and harder than in the past.

The need of providing training courses and coaching has been growing and companies take it into serious account.

Despite literature provides a noteworthy number of articles and studies about sales force motivation, the majority of them gravitate around how they can be motivated in the workplace and which factors are impacting on them, however, the aim of this study is to demonstrate there is a way to bring salesmen to motivation directly towards the product they have to sell, thus creating a spontaneous motivation because they become adopters and they believe in what they sell. This is the main difference with the several theories that, on the contrary, have been investigating on the emotive drives to be more involved and motivated and just as a consequence sales will come.

RESEARCH QUESTION

Out of the current challenging situation, Manufacturers who share the same salesforce have even a harder task to solve: how to motivate the sales representative that sell contemporary also other Brands distributed by competitors.

Companies should not focus their competition at the multibrand sales point only on the margin they can offer to the sales representative. If competition is based only on the most competitive margin condition, in short time the overall industry will be affected by reduced incomes and will be able to invest less and less.

So, wisely, companies who share the same multibrand sales representative, as it happens frequently in automotive sector, are seeking to “MOTIVATE” sales people by touching different “buttons”, thus reaching their goal without affecting the margins.

The question we would like to answer in this research is “how companies in automotive sector, can motivate sales people to sell a product.

Can the way and location of presenting a product change the overall impression of the product itself on the sales people?

The aim of the Motorcycle company was to observe the differences on the reaction of dealers by presenting the same model in a nice location abroad rather than in the usual locations already known by them for past business meetings.

Relevant information from the company:

- The 70% of dealers are multibrand. The remaining 30% declare themselves solus brand but in reality they sell minor Brands, not considered direct competitors of the Brand.
- The new model to be launched belongs to a category where there are already direct competitors, well accepted by the market.
- Italian customers attribute a big value to the image of the bike and its «coolness», so this point might be a serious limit for the sales.
- The initial impressions from the Company in charge of launching the model in Italy are that this model will be technically well accepted but that its design will lack of personality and it will suffer from the appeal of the other competitors.

METHOD

In order to verify if there will be any difference in running the presentation and training to dealers in a nice location abroad or in closer locations in Italy, already used for daily regional meetings involving dealers the company decided to split the dealers into two groups.

The training sessions were exactly the same; the program was delivered by the same trainee and for the same number of hours. The duration of the riding session was the same both in Spain and in Italy. The group that went to Spain arrived at the location the day before and was involved in a dinner at the centre of Llore de Mar.

Panel

In order to pursue the objective of this research, the panel is statistically non representative as sample, however we were interested in basic psychological processes rather than generalisations.

In addition, if we consider the specific category the panel belongs to, i.e. "Motorcycle dealers" the panel of 62 people turn to be more interesting and representative of this category, if we consider the small number of this kind of peculiar entrepreneur.

It is worth to deepen the profile of the abovementioned category. The Motorcycle Dealer is a small entrepreneur, normally very passionate of his job. He has chosen this job for the passion he feels for motorcycles more than for a business opportunity evaluation.

For this reason, the more they are involved with a certain bike, the easiest will be to sell it.

They share a common language with the motorcyclists, this is one of their strengths.

This element should be considered when discussing about motivation, because in this case it is the product itself that can stimulate the dealer motivation to rise, whilst if we consider other sectors, the product not always can have this function but motivation must be found elsewhere.

Going back to the panel, the dealers who participated to the new model training were a total of 62, divided in the following way:

Group A → 17 dealers invited to the training in Spain – Lloret de Mar

Group B → 45 dealers invited to the training in Italy – 4 locations (Catania, Roma, Bologna, Torino)

The selection of the dealers was not random though. The group “A” was selected based on the following criteria:

- 1) the market potential of the segment “Naked”, the one the new bike belongs to.
- 2) The last 5 years sales of the same category of bikes.

The combination of these two criteria generated a dealer ranking, that was used to define the group “A”.

Data collection

In order to measure the perception of the dealers towards the same bike and also the comparison between the new bike and its direct competitors, a questionnaire was proposed to them. In the questionnaire they were giving their evaluation both on technical features, appearance and riding performance.

The data were collected immediately after the riding session, in the end of the day. Dealers were invited to fill the form individually, in order not to influence each other. The same method has been carried out both in Spain and in Italy.

Data analysis

The overall average results show how the new bike has been well perceived by the dealers with the best rate both in Spain and in Italy. Moreover, as our research meant to demonstrate, the average rate given to be bike in Spain has been slight higher than in Italy (8,9 vs 8,2) and competitors evaluated with lower scores compared with the same competitors in Italy.

MOTO	AVERAGE RATE in Italy	AVERAGE RATE in Spain
Competitor 1	5,92	5,36
Competitor 2	7,17	6,84
New Bike	8,20	8,90

Table 1. *The average rates of the three bikes.*

So it emerges that in Spain not only the average evaluation of the new bike has been higher but also the gap between the new bike and its competitors has been more evident.

The gap has been of 3,54 between the new Bike and Competitor 1 in Spain whilst it has been of 2,28 in

Italy.

For Competitor 2 the gap has been 2,06 in Spain whilst it has been 1,03 in Italy. In both cases the gap from the new bike and the two competitors appears to be higher in Spain than in Italy so even this result shows how the dealers invited in Spain were more motivated to appraise the new bike better than the other two competitors. This result is not only shown in the absolute rate but also in terms of gaps between the bikes tested in Spain and Italy, as the above numbers just show.

Going into the details, here below you can find the several parameters dealers were requested to evaluate and the data collected in Italy and Spain.

The “Design” has been the element that has received a very close rate both in Italy and Spain and it is also the lowest compared with the other parameters. As predictable, the strength of this bike is not the design, however, dealers in Spain rated more some other parameters, mainly the ones related to the riding experience, so the engine, the riding position, the riding feeling and the braking system. They probably enjoyed the riding test in a new scenario rather than their colleagues that tested the bike in well known places.

NEW BIKE	Italy	Spain	$\Delta(\text{Spain-Italy})$ rates
DESIGN	7,07	7,18	+ 0,11
COMPONENTS	7,82	8,12	+ 0,30
INSTRUMENT PANEL	8,36	10,00	+ 1,64
RIDING POSITION	8,00	8,47	+ 0,47
ENGINE	8,71	9,65	+ 0,94
GEARS	8,44	8,94	+ 0,50
BRAKING SYSTEM	7,68	8,47	+ 0,79
RIDING FEELING IN TWISTY ROADS	8,71	9,76	+ 1,05
MANOUVRES	9,02	9,53	+ 0,51
OVERALL AVERAGE	8,20	8,90	+ 0,70

Table 2. *The evaluation of all parameters of the new bike in Spain and in Italy*

It is interesting to compare also the evaluated parameters of the other two competitors, together with the new bike, in order to see if some evidences come out.

Here below the results of the questionnaires.

	Rates in Spain			Rates in Italy			Rates (Spain - Italy)		
	New Bike	Comp. 1	Comp. 2	New Bike	Comp. 1	Comp. 2	New Bike	Comp. 1	Comp. 2
DESIGN	7,18	5,53	7,65	7,07	5,42	6,93	+0,11	+0,11	+0,71
COMPONENTS	8,12	5,53	6,71	7,82	5,20	6,76	+0,30	+0,33	-0,05
INSTRUMENT PANEL	10,00	4,47	6,59	8,36	4,86	6,67	+1,64	-0,39	-0,08
RIDING POSITION	8,47	5,29	6,82	8,00	6,04	6,98	+0,47	-0,75	-0,15
ENGINE	9,65	5,06	6,94	8,71	5,38	7,29	+0,94	-0,32	-0,35
GEARS	8,94	5,41	6,71	8,44	6,00	7,20	+0,50	-0,59	-0,49
BRAKING SYSTEM	8,47	5,06	6,59	7,68	5,91	7,02	+0,79	-0,85	-0,43
RIDING FEELING IN TWISTY ROADS	9,76	5,53	6,71	8,71	6,49	7,64	+1,05	-0,96	-0,94
MANOUVRES	9,53	6,35	6,82	9,02	8,00	8,04	+0,51	-1,65	-1,22
OVERALL	8,90	5,36	6,84	8,20	5,92	7,17	+0,70	-0,56	-0,33

Table 3. *The comparison of the three bikes in Spain & Italy.*

What emerges from the data is that except for two marks in the Competitor 1 and one mark in Competitor 2, the dealers expressed higher marks for the new bike and lower for the competitors in Spain. It appears clear from the table above, where it is possible to check the rates in Spain, in Italy and the gap between the two.

In Spain the new bike has been evaluated better than in Italy in all aspects; whilst the two competitors were evaluated with lower rates in Spain than in Italy. This fact shows how the overall atmosphere and the circumstances brought advantages to the evaluation of the new bike.

FINDINGS

From the data collected it is possible to highlight how the dealers attending the training in Spain, in a nice location, involved from the evening before, thus creating a good and friendly atmosphere, expressed higher appreciation for the new bike rather than the ones involved in the same training but in Italy in already known locations close to their daily businesses.

The overall positive approach of the dealers in Spain not only affected successfully the evaluation of the new bike presented, but had an impact also on the two competitors' bikes that received lower marks in Spain than in Italy, thus showing the positive psychological effect of the trip abroad and of the special treatment addressed to the dealers invited in Spain.

MANAGERIAL IMPLICATIONS

After this research it appears clear that despite companies should allocate a higher budget for organising a new model presentation in a location out of the usual business hotels, however, it seems evident that the participants demonstrated to have appreciate more the bike in Spain rather than in Italy and moreover, they gave lower marks to the competitors, thus increasing the gap between the perception of the bike in Spain compared with competitors.

The salesmen force positive attitude should be the starting point for launching a new model and selling it.

RECOMMENDATIONS FOR FUTURE RESEARCH

An interesting further analysis should be to check the sales of the two groups of dealers and check if the positive attitude and motivation of the dealers in Spain brought also a better result in sales than the sales of the dealers invited in Italy.

This check cannot be done in this specific case because the dealers selected for the training in Spain where chosen based on two criteria, one related to the market potential of that kind of bike and the

other related to the last 5 years sales of the same category of bikes. Since they were “appraised” also for their performance, it is not correct to analyse their result, because they might have been naturally better even without the training in Spain.

However, the same research should be run on a panel selected randomly from north to south of Italy and disregarding the market potential and their sales performance.

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USING MASS MEDIA IN ENVIRONMENTAL COMMUNICATION: THE CASE OF EARLY CHILDHOOD EDUCATION

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ABSTRACT

Nowadays, mass media are viewed as a valuable educational mental and cognitive tool, which can transform the work of educators and lead to beneficial learning outcomes. The integration of mass media in the educational process functions as a source of great interest and pleasure for students, since it facilitates their cooperation and communication. Furthermore, mass media constitute a tool for environmental communication, as a basic channel which provides information on environmental issues, contributes to the dissemination of environmental knowledge and raises environmental awareness among the public. In the case of early childhood, it is deemed particularly essential in shaping environmental awareness, by providing knowledge regarding fundamental environmental problems and mainly by making students aware of their actions and their impact on the environment.

The requirements of modern society necessitate that plans are put in place for the inclusion of mass media in the educational process, from the level of early childhood education. The introduction of computers and the Internet in kindergartens has radically changed the role of educators, as well as the way in which students interact and environmental problems are presented.

Keywords: early childhood, mass media, educational use, environmental education.

MASS MEDIA AND ENVIRONMENTAL COMMUNICATION

The industrial revolution has disrupted the relationship between man and nature, due to the effects of human intervention (Bozdemir *et al.* 2014). Diverse environmental problems have emerged as a result of the way in which humans have impacted on nature and, more specifically, due to mankind's destructive frenzy, which has led to a downgrading of life quality. As confirmed by Haramis, (2001), the environmental problems facing the world today are the outcome of the particular way in which people have treated the natural environment, and indicate that the relationship between man and nature needs to be revised. The disruption caused to the natural environment has led to an ongoing

debate between citizens, the authorities and experts (Skanavi, 2004), which aims to ensure citizen participation in decision-making practices regarding the environment. Each citizen must acquire participatory skills, be able to comprehend environmental issues, perceive their causes and evaluate possible solutions.

According to Ragkou (2013), as environmental problems become ever more acute, the need for environmentally aware and well-informed citizens also becomes greater. We all have a duty to pay attention to and manage the environmental concerns affecting our planet, by implementing feasible environmental actions. The only way to change the dramatic state of the natural environment is by getting citizens to exert pressure and show support, so that the environmental situation is better understood and evaluated.

An important guide for the management of environmental problems is Environmental Communication, which is a process that can ensure that the most suitable environmental decisions and laws are put forward (Skanavi, 2004).

At the same time, the term 'Environmental Communication' is interpreted as the transmission and exchange of information related to the environment, which represents a mutual process of learning (Bolli, 1999). Harrison (1993), provides a similar interpretation in his definition, stating that Environmental Communication involves an open two-way exchange between population groups that are interested in a specific subject. It is also obvious that both the common features and differences that exist between the afore-mentioned definitions, all dictate that Environmental Communication should be a two-way process, based on interaction between the communicating bodies, although this is not always achieved in practice (Zingales, 2000). However, according to OECD's definition (1999), Environmental Communication is the strategically planned use of the process of communication and of mass media products, in order to effectively support policy planning, citizen participation and the implementation of programmes aiming at environmental sustainability. This theory focuses on an organised process, whose specific aim is environmental sustainability (Skanavi, 2004).

Environmental Communication is a concept which essentially includes all other forms of Environmental Education. Nevertheless, it is also considered that non-formal education includes all forms of education (Simkins, 1997). Environmental actions are affected primarily by non-formal, rather than any other form of education (OECD, 1999).

Mass media constitute the main source of information on environmental issues, and the way in which these issues are promoted in the media is directly related to whether they are questioned or resolved (Hansen, 2011). Various studies have been developed in relation to environmental communication, which focus on environmental issues as being related to overall development. The relevant research

involves a broad spectrum of mass media, linked to scientific, health-related and environmental topics (Hansen, 1991). In addition, there have been significant developments in the field, far from traditional narrow-sighted views, which consider the dominant issue as being the news coverage of environmental matters and its effect on public opinion. Their aim is to highlight the broader social, political and cultural role the news can play in relation to environmental communication (Hansen, 2011).

The relationship developed between the Media, environmental knowledge and public environmental awareness is in a constant state of interdependence, since these parameters are all linked to Environmental Communication.

THE ROLE OF MASS MEDIA IN THE EDUCATIONAL PROCESS

The term Media encompasses the whole spectrum of communication media: television, radio, video, cinema, newspapers, magazines, photography, advertising, recorded music, electronic games and the Internet (Buckingham, 2003). It also includes all forms of education projected in mass media: the Press and photography, radio and television (audio-visual education), cinema (film education), the Internet and new technologies (digital education), mass media advertising (commercial education) and any other form of expression and communication in the modern digital age (www.iom.gr).

The role of mass media in the educational process is particularly important, since the former make teaching more interesting and pleasant. Furthermore, the use of mass media facilitates student collaboration and communication (Kamarianos, 2002).

There are two aspects related to the use of mass media in education: firstly, mass media as the object of teaching and, secondly, mass media as a medium for teaching. When media are the object of teaching, then it is necessary to teach about all media formats, both traditional (e.g. newspapers) and modern or new (e.g. multimedia). When mass media are used as a medium for teaching, then they are not the goal of learning but simply facilitate the process of learning (Vryzas, 1997).

The use of new media in education provides an opportunity for individualised and group teaching, contributes to active experiential learning and to a multi-sensory use of the teaching material (Tur-Kaspa and Leitner, 2000). On the contrary, the disadvantages of using new media in education are related to the fact that they focus on the outcome rather than the process, since they represent an ongoing mechanistic dialogue, which involves the risk of student manipulation. On the other hand, such problems can be overcome by incorporating the use of Media in an educational environment which features modern and innovative visual creations (Ronen and Eliahu, 2000).

THE USE OF MASS MEDIA IN ENVIRONMENTAL EDUCATION IN EARLY CHILDHOOD

From an infant age, children externalise their curiosity for all that surrounds them. They explore their environment in every way possible, before even taking their first steps. Their interest and inherent curiosity are usually depicted in their first drawings –children, trees, the sky, the sea, animals, are usually the main subjects of children’s drawings. The use of mass media in the educational process is usually observed in pre-school education, primarily at kindergarten. It has been proven, that the earlier students begin to use mass media, the more effective the use of the latter can be (Nika, 2007).

Although children recognize the basic elements of their environment from very early on, they are not able to comprehend the way in which they interact and the impact of their actions and choices on the environment; this is often the case with people of an older age too. By using mass media, educators facilitate young students in understanding the sensitive balance and correlations that exist between the elements of their environment (Ronen and Eliahu, 2000, Sheridan et al., 2009).

More specifically, as regards the use of mass media in early childhood:

NEWSPAPERS

The use of newspapers in kindergarten is an important activity with substantial educational benefits. Newspapers transmit their message through a combination of written and illustrated language, which has a stable, continuous form, very dense meanings and a rigid structure. Newspapers are considered to be a familiar sight for children, and part of their daily life; they can contribute to the development of various educational activities. In addition, they can also be incorporated within the teaching process, either as a teaching tool or as an object of teaching. The educational use of newspapers by kindergarten children can play a major role in nurturing their skills and developing their creativity, while also strengthening their literacy skills (Valsamidou, 2010). Newspapers are multimodal texts, with a number of dissimilar elements that are interconnected through a system of codes (Vryzas, 1997). The latter are decoded through the use of newspapers at kindergarten; this can involve activities covering all learning areas, with a focus on “language”. This fact is directly linked to the scientific consideration of emerging literacy, according to which children have already acquired knowledge through verbal and written communication before going to school (Koutsouvanou and Arvaniti-Papadopoulou, 2008); this is nowadays the predominant view as regards the way in which young children acquire written language (Papoulia, Tzelepi, 2001).

“Initial” reading and writing skills are taught within a major operational framework, that is primarily supported by educators reading aloud (Koutsouvanou and Arvaniti-Papadopoulou, 2008). Such an

approach to reading and writing contributes to the formulation of a supportive environment for literacy skills in kindergarten.

Kindergarten students are acquainted with the linguistic conventions used in newspapers and the codes they use. They are able to single out titles, text, images and advertising columns. Furthermore, their contact with newspapers leads to reflection on methodology, the representation of the facts and the interpretation of information, according to their own criteria (Buckingham, 2013, Vryzas, 1997).

Putting together a newspaper in kindergarten is an activity that attracts the children's interest; it gives the children a leading role in the whole process and its goal is for them to gain experiential knowledge through their active participation (Doliopoulou, 2001).

During the implementation stage, the children examine newspapers and identify their main features. When they have perceived how information is presented in a newspaper, they begin the process of drawing, creating and shaping the articles and general topics that they will be working on (Nakou, 2005). In essence, the children take on the role of editors throughout the implementation of a work plan, and discuss its progress through feedback exercises. The creation of a newspaper reinforces the digital literacy of pre-school aged children, supports and modernises the learning process, and brings children into contact with a variety of texts.

More specifically, as regards environmental matters, the effect of newspapers on environmental awareness and information provision for students is of major importance. By publishing a drawing or putting together a text, their environmental awareness is strengthened further. It is also worth noting the dynamic role that newspapers play in fostering environmentally-friendly behaviour, through their interaction with students and due to their frequent use (Comby et al., 2014).

B. The use of Information and Communication Technology (ICT)

The use of ICT in Early Childhood Education offers multiple benefits, since it makes learning an experiential, pleasant, rich experience as regards the teaching material, and gives children the opportunity to act on their own initiative and directly participate in the process of learning. Research has shown that the use of ICT serves as a complementary function to various activities and has a positive effect on children's learning (Pedagogical Institute, 2011).

More specifically, computers are used primarily as a complementary medium to other activities, while the goals pursued in this context, are mainly cognitive. The research data (e.g. Clements and Sarama, 2003, Yelland, 2005, Siraj-Blatchford and SirajBlatchford, 2006, McCarrick and Li, 2007, Sangra and Gonzalez-Sanmamed, 2016) converge towards the observation that computers can be used as a tool in order to support the learning of young children, and can aid them as regards communication, cooperation, creativity and linguistic development. Furthermore, cooperative learning is promoted,

and in this way students acquire social skills, such as learning and following rules, respecting the opinion of others, experiencing the satisfaction of team work and, at the same time, acquiring self-knowledge and becoming aware of each person's limitations and potential. Finally, kindergarten students are able to develop their psycho-motor skills, since they get practice in the fine handling of objects (using a mouse and keyboard) and in eye-hand coordination (Doliopoulou, 2001).

Computers can be used as a tool for learning to write, since children have the opportunity to experiment by using a different font each time, and a different letter size and colour. They also provide children with audio feedback, visual imaging and allow them to check their learning progress.

The introduction of computers offers new, modern ways and methods of carrying out educational activities. Society has an ever-increasing demand for "technological literacy", which means that it is essential to adopt an overall plan to integrate IT within the educational process, starting from the initial levels of education (Komis and Papandreou, 2005). In this way, through simple and suitable programmes, digital literacy can be achieved.

The introduction of computers in a kindergarten setting offers opportunities for experimentation, exploration, playful and active learning, various sensory and conceptual strategies, less mental fatigue, quicker reasoning skills, and a methodology that respects and better adapts to individual rhythms and characteristics, fosters independent learning, reinforces abstract functioning and constitutes a modern alternative working and successful learning approach (Vosniadou, 2006, Dagidelis and Kaskalis, 2001, Raptis and Rapti 2004, Diamantaki et al, 2001).

Numerous studies have showed that children's involvement with computers has a positive impact on their overall development (Doliopoulou, 2002) and can function as a powerful stimulus that will transform experiential situations into a learning experience. More specifically, research results have highlighted the beneficial impact on the development of cognitive skills and school preparedness, linguistic and socio-emotional development and on the children's self-esteem (Doliopoulou, 2002). At the same time, the use of computers in the classroom provides students with better opportunities to build on their knowledge, without becoming passive recipients or listeners. Computers present a variety of subjects in an attractive manner that is simultaneously dynamic and interactive (Raptis and Rapti, 2002).

The introduction and incorporation of computers in education must be carried out in a methodical and systematic manner that will ensure that specific learning goals will be attained. Various activities can be practiced, such as digital narrations, exercises linked to bilingualism, syllables, writing, exchange and search for information etc. (Efthymoudi, 2015).

The use of computers in order to facilitate learning during the process of education is integrally linked to the use of educational software, which can be either used as “a supplementary medium for teaching by educators in the framework of their teaching or as a support medium for self-teaching by the student” (Bakogiannis and Grigoriadou, 2000). The children’s familiarisation with various kinds of software covers a wide range of their interests, since the combination of knowledge with images and sounds creates a unique atmosphere for children, which excites both their interest and their imagination. The suitability of educational software must be evaluated as regards its general features, content quality, teaching approach, its criteria per cognitive object, and the quality of interaction (Mikropoulos, 2003)

The software provided to children at pre-school gives them the opportunity to learn the alphabet, distinguish between letters and numbers, and develop skills, such as memory, logical thinking and fact correlation in problem-solving. In this way, the children’s computational and observation abilities are enhanced, through a variety of educational software programmes available on the market (Kafantaris, 2002). The use of Tux Paint software for example, creates a pleasant environment, since it combines a pleasant interface, interactive sound effects and an encouraging animated mascot, which guides the kindergarten students as they use the programme. They can express themselves and create their own compositions, develop their imagination by being given opportunities to practice creative writing, compose original stories and produce animations, all through individual or group activities mediated by the kindergarten teacher (Bessi and Pappa, 2011).

One of the media that provide visual messages are digital videos, although their use in class as an educational tool within the framework of active learning is still at an elementary stage. The advantage of videos is the fact that they combine speech, sound and image, which is why they have been used in various educational frameworks to support learning (Bates, 1985) as a dynamic tool of visualisation, narration, abstraction and recognition. Furthermore, images attract the attention of students and thus strengthen the learning experience. The idea of using videos in class is often an important factor that can motivate the active participation of students in the educational process. Students are in general more enthusiastic about using new technology in learning as compared to traditional methods. Technology offers the possibility to discuss and analyse lessons, and the opportunity to identify and repeat any points that require attention (Pedagogical Institute, 2011). Allam (2006) notes that the creative challenge of using animated pictures, sound and movement, allows students to acquire a range of transferable skills, through their contact with direction, namely: to study methodically, work collectively, resolve problems and master organisational skills. Current developments in digital technology have significantly reduced the cost of production, which means that videos can easily be used in class, in order to record and analyse various forms of interaction (Pea and Hay, 2002), and

nurture critical thinking, creative and cooperative learning (BECTA, 2004). Technology can transfer students almost anywhere and expand their interests above and beyond the classroom walls (Smaldino, et al, 2004).

Nevertheless, the use of ICT in Early Childhood Education appears somewhat limited, particularly in the teaching of linguistic subjects. Some educators claim that while student interaction is cultivated, their curiosity is aroused and their attention maintained to a great extent, on the other hand, their self-motivation is stalled along with their imagination. In this respect, a challenge for the future is to design and implement educational activities that will make use of ICT but also promote the self-motivation of young students to the utmost degree (Tobatzoglou, 2013).

There is no doubt that the use of computers in pre-school education mainly involves a school's bureaucratic functions (Vosniadou, 2006), whereas their use in teaching is more limited (Margetousaki, 2002). As a rule, computers are used for administrative purposes, and to upload photographs from class activities, without being used further; other activities are also combined with computer use (Bessi M., Pappa L., 2011). In addition, a small number of kindergarten teachers only occasionally use computers for lesson preparation (Koustourakis et al., 2000). This hesitant attitude as regards the specific use of computers may potentially be related to teachers viewing computers as teaching material and not as a teaching tool in education (Diamantaki et al., 2001), and to their lack of knowledge regarding their potential use and the impact of the interaction between computers and their students. For this reason, educators with limited knowledge and low self-confidence avoid using computers in their teaching. In this respect, continuous training programmes can provide valuable technological feedback to educators, as regards the valorisation of ICT in education.

Based on the above, the contribution of ICT in the recognition and effectiveness of Environmental Education (Rickinson, 2001, Mikre, 2012) is of particular importance. There is no doubt that the use of computers in Environmental Education can also cover the current demand for technological literacy (Ioannidou et al., 2006). More specifically, most IT applications provide support, through Environmental Education programmes, both to the process of education and to the students' awareness of environmental issues (Mathevula and Uwizeyimana, 2014).

At the same time, other media, such as the Internet, multimedia, simulations and virtual reality, are all viewed as options that could strengthen the goals of Environmental Education (Moore and Huber, 2001, Roussou, et al. 2006, Pantelidis, 2006). More specifically, the use of the Internet is the most widely-disseminated use of ICT, which ensures access to sources of environmental information (Moore and Huber, 2001). Various researchers' studies refer to the valorisation of ICT applications in activities that promote the special goals of Environmental Education (Diamantaki et al., 2001), since

the use of ICT aims to approach the environment not only as an object of study, but also as a medium for raising awareness. Other important studies have also highlighted the contribution of ICT applications to raising awareness and shaping environmentally-friendly attitudes among students (Komis and Papandreou, 2005).

CONCLUSIONS

Environmental Communication involves the transmission and exchange of information related to the environment and represents a mutual learning process. It includes all forms of Environmental Education: formal, non-formal and informal, with non-formal learning incorporating all other forms of learning. Environmental activities are linked to non-formal learning to a greater extent, rather than to any other form of education.

The variety of environmental problems have created an imperative need for the establishment of a modern educational movement, which has introduced the concept of Environmental education, in relation to the training of technical staff and experts on environmental issues.

The use of mass media in the educational process is mainly practiced in pre-school education and at kindergarten. It has been proved that the sooner the use of mass media is introduced, the higher the levels of efficiency that are attained regarding their use by the children.

It is a fact that children, from a very early age, externalise their curiosity regarding all that surrounds them. Even before they have taken their first steps, they are already exploring their environment in every possible way. This interest and inherent curiosity are usually depicted in their drawings at that age (e.g. children, trees, the sky, the sea and animals are all the main subjects).

Through the use of mass media, educators help young students comprehend the sensitive balances and correlations that exist among the elements of the environment. To this aim, the former attempt to educate students from an early age with the aim of raising environmental awareness and creating a basic understanding of environmental issues, with the ultimate goal to shape their environmental attitudes, behaviours and values. Through the development of a range of environmental actions, the active participation of students is encouraged, so as to create environmentally responsible citizens.

Within this framework, mass media is not an end in itself, but tools that support the educational process and comply with specific pedagogical objectives. All types of media can become teaching tools, provided that the educator intervenes in their use by the students, so that potential risks are avoided. Educators and students are required, apart from their familiarisation with the technological code of media, to also comprehend their cultural code. Thus, through the use of specific programmes, media can constitute not only tools but also objects of learning. One encouraging observation is the

fact that the Ministry of Education has recently been supporting the use of audio-visual media, through school curricula.

It is important to incorporate the use and didactic exploitation of all mass media in daily teaching practices in a methodical and systematic manner.

The use of newspapers in kindergarten is a significant activity of this kind with substantial pedagogical benefits. As regards environmental issues, the impact of newspapers in promoting environmental information and awareness among students is particularly meaningful. By publishing a drawing or putting together a piece of writing, the impact of environmental awareness is further enhanced. The dynamic role that newspapers play in shaping environmentally-friendly behaviours is reinforced through their interaction with the students, the clear promotion of environmental problems, and their frequent use.

ICT has well and truly entered the kindergarten space and educators are invited to respond to the demands that this new situation has created. More specifically, kindergarten teachers, while acknowledging the use of ICT, and of computers in particular, in creating the best opportunities for building knowledge, nevertheless avoid their systematic use in the learning process due to lack of knowledge. Thus, educators must acquire basic ICT skills and be properly trained on how to use them as a suitable pedagogical tool in class. Only by continuously offering improved training programmes that focus on the valorisation of ICT in the educational process will it be possible to change people's views and overcome objective difficulties involving their use. In this way, educators would be able to fully take advantage of the unstoppable media evolution.

Based on the above, the contribution of ICT to the recognition and effectiveness of Environmental Education is of great importance. It is an indisputable fact that the use of ICT in Environmental Education also satisfies the current demand for technological literacy. More specifically, the majority of IT applications, through Environmental Education programmes, provide support to the educational process and also raise awareness on environmental issues.

At the same time, other media, such as the Internet, multimedia, simulations and virtual reality are viewed as tools that can further enhance the goals of Environmental Education.

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THE ROLE OF MASS MEDIA IN SHAPING ENVIRONMENTALLY RESPONSIBLE BEHAVIOUR: A PREDICTION MODEL FOR THE INCLUSION OF PRIMARY EDUCATION TEACHERS IN ATTITUDE AND BEHAVIOUR CLUSTERS

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ABSTRACT

Mass media are a primary source of environmental information for citizens. They attract public attention on environmental issues and, through the information they provide, they reinforce the demand for public intervention, so that such problems can be resolved. At the same time, they create the conditions for shaping environmentally responsible behaviour and an active environmental profile. The role of mass media in the educational process is particularly important, since mass media make the object of teaching more attractive and interesting. The use of media facilitates collaboration and communication among students, and has been introduced into the process of education from pre-school, mainly at kindergarten. This decision is based on the observation that the sooner children begin to use media, the more effective the use of the latter can become. A goal of education from an early age is to create environmental awareness among students, along with a basic understanding of environmental issues, with the ultimate goal to shape environmental attitudes, behaviours and values. The aim of this paper is to study the way in which mass media impact on the formulation of environmentally responsible behaviour among teachers in Primary Education. More specifically, the paper presents a methodological approach for a “prediction model” that will allocate primary education teachers with similar environmental attitudes and behaviours to specific clusters. This approach is based on the application of Principal Components Analysis, Hierarchical Cluster Analysis and Categorical Regression with optimal scaling. According to the prediction model, the inclusion of a teacher in a cluster takes into account the type of environmental problems they would like to see the mass media focusing on and their evaluative attitude and beliefs, regarding the contribution of mass media to issues regarding public awareness. The prediction model is also influenced by work experience, possession of a second degree, family status, and the teachers’ age. It is worth noting that work experience is related to the school grade the teachers are working with (working with

older children is more closely related to the use of mass media in the educational process and in environmental education).

Keywords: environmental communication, primary education, prediction model

INTRODUCTION

Mass media are a source of information on local and national issues, and also problems affecting modern society. Communication is a broad term, which also pertains to the provision of information, and includes the two-way operation of numerous mass media (TV, radio, printed publications, Internet, computers etc.) (De Fleur and Dennis (1994).

The role of mass media in formulating modern reality is multi-dimensional, since media play a central role in people's lives (De Fleur and Dennis, 1994). They evaluate and interpret social reality, and also function as major entertainment and educational media.

More specifically, as regards the environment, mass media constitute a basic tool for the presentation of environmental issues and problems (Brulle et al., 2012). They attract public attention to environmental problems and, through the information they provide, they accentuate the need for public participation in their solution (Ors, 2012).

There is a need to examine the factors, which contribute to shaping an environmentally responsible citizen; the former are interconnected and interdependent, and aim at creating environmentally responsible behaviour, and at the same time an active environmental profile. As noted by Marcinkowski (1998), the term "environmentally responsible behaviour" refers to the overall behaviours observed, which show an intent or willingness to contribute to resolving environmental problems.

The first simple environmental behaviour models created were based on the hypothesis that the linear progression of environmental knowledge leads to pro-environmental attitudes, which in turn are considered to lead to pro-environmental behaviours (Skanavi et al., 2005). As this view indicates, the more knowledge people obtain about the environment, the better informed and trained they will be on such issues and problems, while also developing a more environmentally-friendly attitude and mentality, that will give them the opportunity to act in a pro-environmental way with a higher degree of responsibility (Birch and Schwaab, 1983, Hungerford, 1996). However, studies related to the identity of environmentally responsible behaviour have shown that the above-mentioned linear correlation model is not valid (Hungerford and Volk, 1990, Marcinkowski, 1998, Hwang et al, 2000). As noted by Hwang et al. (2000), although a more environmentally-friendly attitude is deemed

essential, nevertheless, such an attitude does not necessarily lead to environmentally responsible behaviour. The lack of validation of the above model has led to the realisation of numerous studies that have examined the variables related to shaping environmentally responsible behaviour in people (Dawn and McDonough, 1999).

Mass media, as tools for non-formal education, can promote the study of sustainable development, through the presentation of environmental news, whereby the processing and analysis of an issue can provide the opportunity for an in-depth examination of its various aspects and its connection to other issues, and the portrayal of evidence-based views on its relevant impact (Skanavis and Sakellari, 2008).

The role of mass media in the educational process is of particular importance, since the media add a more interesting and pleasant note to the teaching material. It has also been noted that the use of mass media facilitates student collaboration and communication (Kamarianos, 2002). The use of mass media in education has been introduced from early childhood, at kindergarten in fact, since it has been proven that the use of mass media is more effective when it is introduced at a young age (Nika and Davou, 2008). By using mass media, teachers assist young students in comprehending the sensitive balances and correlations that exist among the diverse elements of the environment (Ronen and Eliahu, 2000). A primary objective is to provide such training to students from an early age, in order to raise environmental awareness and an elementary understanding of environmental problems, while the ultimate goal is to shape relevant environmental attitudes, behaviours and values.

On a general level, mass media have the potential to influence public behaviour, by formulating relevant attitudes and behaviours. Moreover, mass media can trigger and cause social change, by shedding light on various forms of social action (McQuail, 1994).

The effect of mass media depends on the content and use of each medium. It can be positive or negative depending on the way in which the media interact with society (Greenfield, 1988). A major role, as regards media impact, is attributed to the socio-cultural environment and particular characteristics of every person. Mass media influence principles, values and ideologies, while also cultivating a more environmentally-friendly attitude and mentality (Ramsey and Rickson, 1976, Birch and Schwaab, 1983, Hungerford and Volk, 1990).

The purpose of this paper is to study the way in which mass media affect the formulation of environmentally responsible behaviour in teachers. More specifically, it presents a methodological approach for creating a “prediction model” that can allocate primary education teachers to specific clusters featuring similar environmental attitudes and behaviours.

MATERIALS AND METHODS

The research data was collected using a suitably structured questionnaire and through face-to-face interviews with primary education teachers. The selection of the teachers and data collection were carried out with the use of two-stage Proportionate Stratified Random Sampling, as the basic sampling method (Lohr, 1999). The research took place during the period 2014-2015, on a sample of 392 teachers serving at schools in Central Macedonia.

At first, in order to create the typology of the teachers, based on the factors related to the effect of mass media on the formulation of views, attitudes and, therefore, behaviours of teachers on environmental issues, a specific methodology was applied based on Hierarchical Cluster Analysis (Aldenderfer and Blashfield, 1984, Everitt, 1993, Köhn and Hubert, 2014). The proposed methodology for the construction of the typology included two stages. In the first stage, through the use of Nonlinear-Categorical Principal Components Analysis (Dong et al., 2015), the main factorial axes were determined in relation to the views, attitudes and behaviours of the teachers regarding environmental issues.

Five major components were identified, which explain 72.104% of the total variance. Figure 1 presents the five Components of the Effect of Mass Media on the shaping of teachers' attitudes and behaviours.

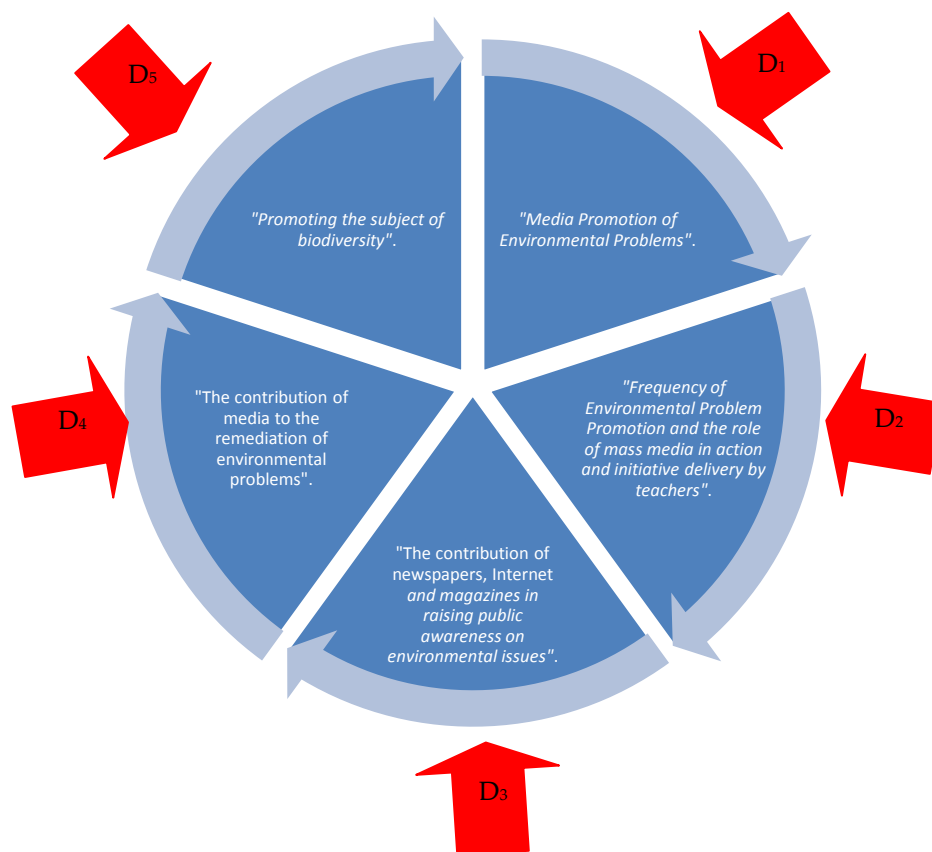


Figure 1. *Components of the Effect of Mass Media*

Next, in the second stage, Hierarchical Cluster Analysis was applied to the values of the teachers' answers in relation to the factorial axes (Petkou, 2017). It is worth noting that the factorial axes constitute new, composite variables, which are now quantitative and linearly independent (Petkou et al., 2018^a).

The Cluster formation was based on Ward's criterion, while the square of Euclidean distance was used as a measure of dissimilarity between the teachers (Hair et al., 1995, Sharma, 1996). The criterion of change to within-class and inter-class variance (Menexes and Aggelopoulos, 2008) showed that a solution must be sought involving 2 to 4 clusters. The results were checked and evaluated with two, three and four clusters. The results with the two clusters (or types) of teachers had the most interesting natural interpretation within the framework of the present research (Petkou et al., 2018^b).

Next, for a better understanding of the individual features of the two clusters of teachers, the "profile" of the clusters was examined in relation to other variables (social and demographic characteristics), which did not however contribute to their formation, but were examined via the questionnaire (Arabatzis and Polyzos, 2008, Aggelopoulos and Arabatzis, 2010).

For the construction of a "prediction" model to identify the two types of teachers, Categorical Regression with optimal scaling was used (Gifi, 1996, Siardos, 1999, Friedman, 2012). The Categorical Regression method constitutes an extension of Multiple Linear Regression, since a) categorical and quantitative variables can be used simultaneously in the analysis and b) the relationships between the tested variables can also be nonlinear. Within the framework of this particular method, the values of the categorical variables are replaced with numerical values, in order for certain statistical criteria to be optimised (such as the maximum possible distinction between the interviewees and the maximisation of the mean correlation between the relevant variables) (Gifi, 1996, Kutner et al., 2004, Hayes, 2013, Darlington and Hayes, 2016).

The dependent variable was the variable identifying the cluster that each teacher belonged to, while the independent variables were the questions used to form the clusters. As regards the statistical analyses, the statistical package IBM SPSS ver. 20.0 was used. The Exact Tests subsystem was installed for the Monte-Carlo simulation, as well as the Categories subsystem, for the application of Categorical Principal Components Analysis and Categorical Regression. Significance was set at $\alpha=0.05$ ($p \leq 0.05$) for all statistical analyses.

RESULTS

The Hierarchical Cluster Analysis resulted in two clusters of teachers, in which they are grouped according to their pro-environmental behaviour, and their attitudes and behaviours as shaped by the effect of mass media.

	P	Pratt's Importance
q7: "Do you believe that mass media contribute to the remediation of environmental problems?"	<0.001	0.055
q8: "In your opinion, do media provide stimuli for action and initiative delivery by teachers with the aim to deal with problems and improve the quality of the environment?"	0.071	0.009
q9: "In your opinion, to what extent are environmental issues promoted in the media?"	0.001	0.011
q10_1: "Which environmental problems would you like the mass media to focus on primarily? Pollution."	0.459	0.021
q10_2: "Which environmental problems would you like the mass media to focus on primarily? Reduction of biodiversity."	<0.001	0.111
q10_3: "Which environmental problems would you like the mass media to focus on primarily? Water scarcity."	0.009	0.067
q10_4: "Which environmental problems would you like the mass media to focus on primarily? Greenhouse effect."	<0.001	0.148
q10_5: "Which environmental problems would you like the mass media to focus on primarily? Electromagnetic radiation."	0.145	0.032
q10_6: "Which environmental problems would you like the mass media to focus on primarily? Global population increase."	0.348	0.004
q10_7: "Which environmental problems would you like the mass media to focus on primarily? Hole in the ozone layer."	<0.001	0.193
q10_8: "Which environmental problems would you like the mass media to focus on primarily? Acid rain."	<0.001	0.178
q10_9: "Which environmental problems would you like the mass media to focus on primarily? Disposal of nuclear waste."	0.015	0.061
q11_1: "Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: Television."	<0.001	0.035
q11_2: "Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: Radio."	0.007	0.006
q11_3: "Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: Books."	<0.001	-0.017
q11_4: "Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: Magazines."	<0.001	0.083
q11_5: "Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: Newspapers."	0.002	-0.006
q11_6: "Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: Internet."	0.299	0.008

Table 1: *Main results of the categorical regression.*

Cluster C1 consists of 180 teachers (45.9%) and Cluster C2 of 212 teachers (54.1%). Cluster C1 consists of “progressive teachers”, who have a more positive view of the role of mass media, are older, have a longer work experience, a second degree and further training. Cluster C2 comprises “teachers with conservative views”, who are younger, have less work experience and fewer qualifications.

In order to construct a “prediction” model to identify the two types of teachers and allocate them to the relevant cluster, the method used was Categorical Regression with optimal scaling (Gifi, 1996, Siardos, 1999). The dependent variable was defined as the variable identifying the cluster to which each teacher belongs, and the independent variables are the questions that were included in the cluster formation. Next, with the help of categorical regression, a “prediction model” was constructed to identify the cluster that each primary education teacher must be allocated to.

Table 1 presents the main results from the application of the categorical regression method. The dependent variable was the identification variable of the cluster that each teacher belongs to, while the questions that were used for the cluster formation were the independent variables.

According to the Pratt index values (Table 1), the highest predictive ability is related to the teachers’ answers to the following questions (in descending order):

- “Which environmental problems would you like the mass media to focus on primarily? - Hole in the ozone layer”.
- “Which environmental problems would you like the mass media to focus on primarily? - Acid rain”.
- “Which environmental problems would you like the mass media to focus on primarily? - Greenhouse effect”.
- “Which environmental problems would you like the mass media to focus on primarily? - Reduction of biodiversity”.
- “Do you believe that mass media contribute to the remediation of environmental problems?”.
- “Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: - Television”.
- “Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: - Books”.
- “Evaluate the following mass media as regards their contribution to raising public awareness on environmental issues: - Magazines”.

The application of this method shows that the prediction model is based on the desire of teachers to be informed about specific environmental problems (hole in the ozone layer, acid rain, greenhouse effect, biodiversity). Furthermore, the beliefs of teachers on the role of mass media in addressing

environmental problems are also of particular importance. The teachers' evaluation of the contribution of television, books and magazines in raising public awareness on environmental issues also plays a major role. According to the remaining variables (social and demographic characteristics), that were involved in determining the clusters and typology, it was found that the prediction model is affected by work experience, possession of a second degree, family status and the age of the teachers.

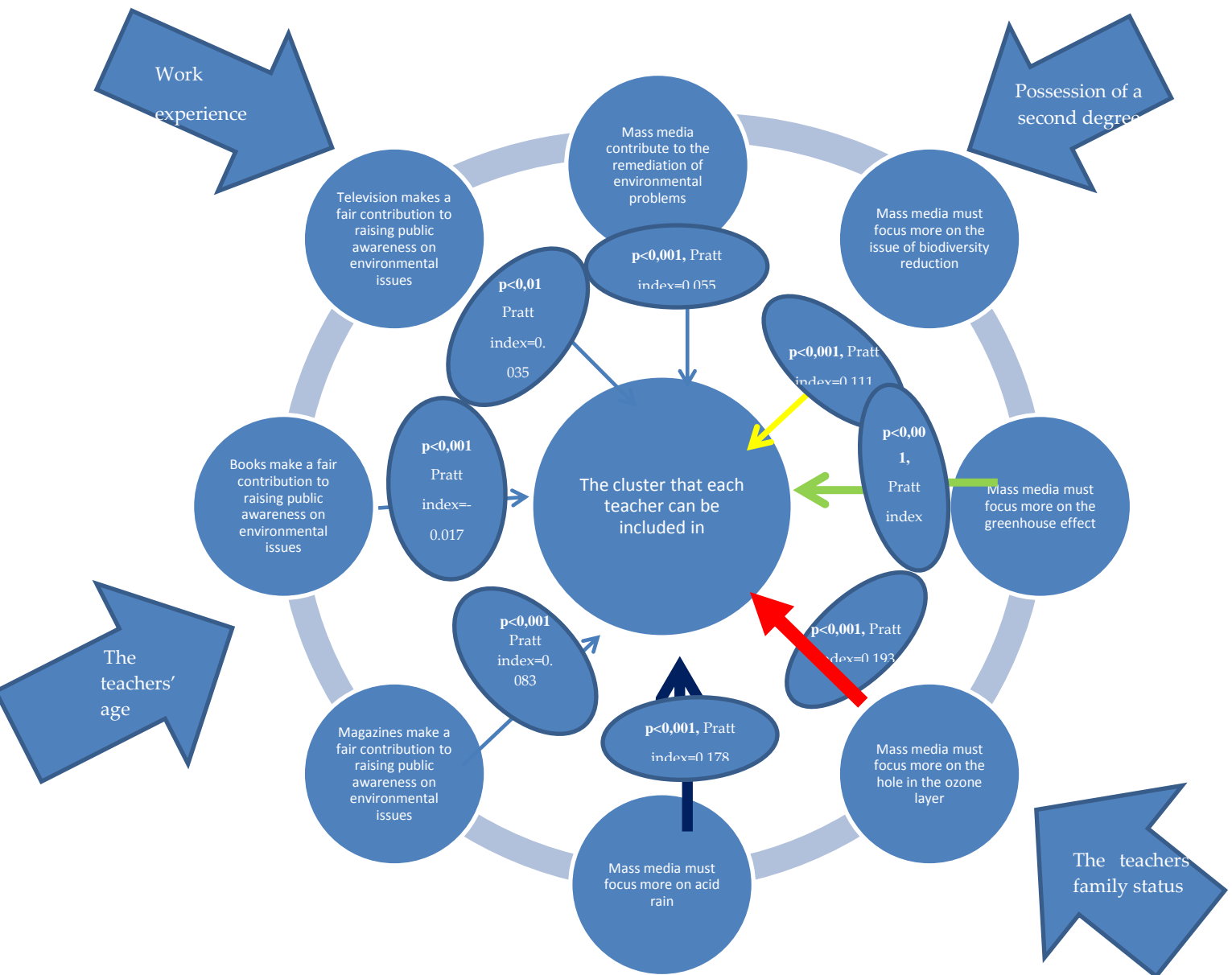


Figure 1 shows the predictive ability of the model regarding the typology of the teachers.

CONCLUSIONS - PROPOSALS

By using categorical regression, a "prediction model" is formulated to allocate primary school teachers to relevant clusters, according to their attitudes and behaviours. The allocation of a teacher to

a cluster takes into account the type of environmental problems they would like the mass media to focus on, and their evaluation of the contribution of mass media to raising public awareness. The prediction model is also influenced by work experience, possession of a second degree, family status and the age of the teachers. It is worth noting that work experience is related to the school grade they are working with (experience from working with older students is linked to the use of mass media in the educational process and in environmental education).

By using a “prediction model”, it is possible to “identify” a teacher as regards their potential to use and valorise mass media in the educational process, and the way in which environmentally responsible behaviour can be shaped.

The prediction model can be used to formulate a suitable educational policy. The ability to detect which teachers will be allocated to clusters characterized by a similar behaviour, as regards the role of mass media in environmental communication, provides the opportunity to apply targeted educational policy measures that will focus on particular methods for integrating mass media within the process of education. These policy measures can potentially contribute to an improved use of mass media (television and magazines) and environmental education centres, and also to the training of teachers on environmental issues of their interest.

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BACHELOR AND MASTER THESES, BIRD OR FISH? WHAT IS A GOOD THESIS? AND WHAT ARE THE DIFFERENCES AND SIMILARITIES BETWEEN THESES AND SCIENTIFIC ARTICLES?

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ABSTRACT

This paper discusses the similarities and differences between peer-reviewed scientific articles and students' theses (bachelor, one-year master, and two-year master). A sample of theses and scientific articles is analyzed as a basis for a discussion of what is a good thesis.

It holds that the Goals are different and that those goals should affect the principal process to be documented, the Research Process or the Presentation of the research results. It also proposes that the Structure of a thesis should to some degree be different from the scientific article. Finally, it proposes a Framework for a good thesis.

Keywords: Higher education, learning, thesis writing, zone of proximal development, scaffolding

1. BACKGROUND

In Northern Europe theses are an integral part of university education. Both bachelor and master students write a thesis, usually it is a half semester, 15 ects credits, project for the bachelor thesis and a one-year master, and a full semester, 30 ects credits, project for a two-year master. In many countries outside of this region the students only write a master thesis and in some there are no thesis writing as such.

What is a thesis? An article on steroids or something different than an article? If the thesis is something else than an article, are there still similarities? Writing is a large part of our education, we must ask ourselves: What is a thesis? What its aim? What questions shall it answer? Are there a specific structure that should be followed? Often, we as teachers are not agreeing about this, which is confusing for the students, especially if they shall follow the advice of a supervisor and then be examined by an examiner. It is our obligation to get such agreement between involved teachers, or at least agree on what we do not agree.

2. DISCUSSION

My view on higher education is inspired by Vygotsky and Polyani (see Philipson, 2016; Philipson, forthcoming). It is similar to the living theory of learning, developed by Schön (1983, 1985) and Boyer

(1990); both after Walton (2011), in that the students learn by reflecting on the internalized experience (tacit knowing) of doing what they cannot do and then reflect on what they have done. Vygotsky introduces the concepts of the zone of proximal development, determining the situation in which such learning is possible, in view of what the students have already learnt and scaffolding, the 'crotches' that the teacher have to provide for the students to be able to do what they don't yet know how to do.

2.1. The zone of proximal development

The zone of proximal development means that we learn by doing things we don't know how to do and then reflect of what we have done: "...the only good kind of instruction is that which marches ahead of development and leads it..."; to lead the student "...to what he could not yet do.", Vygotsky (1970:104). The ZPD is the distance between the actual developmental level, as determined by independent problem solving, and the level of potential development, as determined through problem solving under adult guidance or in collaboration with more capable peers, Dunn & Lantolf (1998:415); Borthick, Jones & Wakai (2003:114).

The ZPD is interpreted as a knowledge-creating activity, Kinginger (2002:247). Mastery of learning activities (tools) leads to mastery of environment, while the mastery of environment, in turn, leads to mastery of one's own behavior. That is, whatever was experienced by the group is later experienced by the individual, Levykh (2008:93). To identify each student's zone of proximal development it is necessary for the teacher to build a long-term social relation with the student, tests will not give enough knowledge. Hence, it is necessary to build such learning environments that permit that such long-term relations to be built.

Concept maps must be broken down into sub-maps of suitable "chunks" of knowledge to create Zones of Proximal Development. It allows certain developmental pathways to be anticipated by the teacher. From this, a careful sequencing of teaching materials to reflect these trajectories should promote meaningful learning, Kinchin, Hay & Adams (2000:52).

These chunks should be constructed to include interrelated sub-maps of the synthesis of the different fields involved in the education. E.g. in studying consumer behavior, not only should theory about consumer behavior be learned, but the students should learn theory about observation, and do systematic observations of consumer behavior, and finally suggest changes in the layout of the retail store studied.



Image 1. Zone of Proximal Development, own.

2.2. Scaffolding

Scaffolding is a Vygotskian concept based on the idea of providing supportive assistance to the learner within the parameters of a learner's zone of proximal development (Wood, Bruner & Ross, 1976, after Dabbagh, 2003:39).

But scaffolding seems to have become a rather mechanistic concept, where the teacher, or a more advanced peer, is supposed to create a support structure for the students to work in the ZPD, but Vygotsky envisaged it as being dismantled, when it was no longer needed, and probably also to raise new scaffolding if it becomes evident that the task is not fully in the students' ZPD. "Scaffolding involves supporting novice learners by limiting the complexities of the learning context and gradually removing those limits (a concept known as fading) as learners gain the knowledge, skills, and confidence to cope with the full complexity of the context" (Young, 1993, after Dabbagh, 2003:39). "Scaffolding was conceptualized as the process of providing higher levels of initial support for students as they entered the ZPD with the gradual dismantling of the support structure as students progressed towards independence. Eventually the scaffold would disappear and a new one be built to help construct the next stage of learning." (Harland, 2003:268). The teacher must build the scaffolding necessary for the students to expand within the ZPD, and then gradually remove them. In such an environment the teacher is to identify each student's possible zone of proximal development, enable learning by creating the scaffolding necessary for the students to make the journey. It is not about raising a standard scaffolding, but to improvise based on 'minimal structures', (Kamoche & Cunha, 2001), of scaffolding to adapt to the students' hardships. "Emotional scaffolding includes the gift of confidence, the sharing of risks in the presentation of new ideas, constructive criticism, and the creation of a safety zone." (Mahn & John-Steiner, 2002:52).



Image 10. Scaffolding

2.3. Research process

In all research there is a research process and an exposition or presentation process that communicates the results of the research process to the readers.

I hold that there are differences in goals between theses and scientific articles; a thesis shall show the result of a learning process and a scientific article shall show the result of a research process conducted by a scientist whose basic learning process is presumed to have in earlier education.

The Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) found that

“To the degree that the primary purpose of undergraduate research is to foster student learning, the emphasis might be on helping students to move along a developmental trajectory in the practice of research.” (Beckman & Hensel, 2009)

One of the most famous examples of the difference between the research process and the presentation process in the social sciences are Marx's study of capitalism. In the preface to the English edition of ‘Grundrisse’ (Marx, 1953/1973), Nicholas writes (Marx, 1953/1973:49):

“Thus the theory emerging from the Grundrisse – and the later elaborated... in Capital...”,
(page 60):

“In the Grundrisse the method is visible; in Capital it is deliberately, consciously hidden, for the sake of more graphic, concrete, vivid and therefore more materialist dialectical presentation.”

(Page 61):

The Grundrisse and Capital I have opposite virtues of form. The latter is the model of the method of presentation, the former the record of the method of working.” [Grundrisse der Kritik der Politischen Ökonomie, was first published in 1953. The presentation process, the ‘positive’ exposition is in Capital, Volume I, (1867/1970). Capital, Volume II (1893/1970), and Capital, Volume III (1894/1970).]

To be able for teachers to judge the learning process, a thesis must be more of a documentation of the research process than the result of a presentation process.

The fundamentally different goals of a thesis and a scientific article has consequences, as have each student's zone of proximal development.

2.4. Structure

I also hold that the different goals and that the thesis to a higher degree documents the research process should result in differences in the structure in the thesis and the article.

In articles, the introduction and the theory chapter are often concatenated and are presented on 3-6 pages. Why do we persist in demanding an introductory chapter, often 5-8 pages and a theory chapter, 10-20 pages, in a thesis? The method in a thesis is typically presented on some 10 pages. In an article it is often 0,5 - 1 pages and seldom more than 4 pages. Why?

The empirical results in a thesis are presented on more than 10-20 pages., in an article it is often not even presented as a separate chapter. Why?

Analysis and conclusions are the chapters of a student thesis that varies most. From 5 to 20 pages, while in the scientific article the analysis is often the main part of the article, 5-10 pages.

Hence, there are differences in goal and hence in structure. As a result of which that the problem formulation in the introductory chapter should contain preliminary research questions, which are refined/deepened at the end of the theory chapter, by being informed about extent research.

Concerning the methodology chapter, I hold that there are five questions that the students have to answer; see my proposed structure, below.

2.5. Gap spotting or problematizing?

Many a faculty hold that students should identify a research gap the study intends fill and that this gap spotting should be already in the introductory chapter. My objection to putting it in the introductory chapter is the same as for putting the final research questions in the introductory chapter. But more important is whether gap spotting is a good scientific beginning! Alvesson and Sandberg (2011; 2013) hold that gap spotting is an approach that that only helps us to refine existing theories, but not to question them and develop really new theories. This critique has recently been acknowledged as part of the legacy of good theorizing in an editorial of the Academy of Management Review (Byron and Thatcher, 2016).

The differences and similarities between theses and scientific articles should be clarified. However, this does not seem to interest researchers. In spite of eager searching, I have not found any comparison between theses and scientific articles. This paper discusses the demands on these theses and how they relate to those of peer-reviewed scientific articles. I do it from the experience of supervising or examining more than 500 bachelor theses and more than 100 one- and two-year master theses. I am a regular reviewer for some journals and on the board of editors of one.

How is the character of learning lead to demands on structure, length etc.

Requirements on a certain level, because of the zone of proximal development:

1. Qualitative & qualitative research
2. Length
3. References
4. Models
5. Research questions and Hypotheses
6. Method

How are these similarities and differences this mirrored in practice? To give a background I analyzed the structure and some characteristics of a small sample of 74 theses and articles. This is presented as a background for my recommendations.

3. HOW IS THIS SHOWN IN PRACTICE?

3.1. Method

In the local theses database of university 1, all bachelor and one-year master theses in business administration examined in 2016 and 2017 was identified. The bachelor and one-year master theses were from university 1. Since university 1 only has a one-year master, the local database of theses at university 2 was sampled for two-year master theses. These universities were used as the author is affiliated with them. A systematic sample was made (each 5th, 17th etc. depending on the number of thesis available. In the same way articles from four scientific journals were sampled through Google Scholar.

The pages were normalized to 12pt Times new Roman with a row distance of 1,5 rows.

	Source	Sample size	Cite score
Bachelor thesis	University 1	11	
One-year master thesis	University 1	9	
Two-year master thesis	University 2	13	
The Journal of Strategic Marketing	Taylor & Francis	10	0.79
The Journal of Product Innovation Management	Wiley	11	4.12
Strategic Management Journal	Wiley	10	5.82
The Academy of Management Review	Academy of Management	10	7.50
Sum		74	

Table 1. Sample, own.

3.2. Findings

Quantitative or qualitative research

As can be seen from table 2., theses of all types are both qualitative (Q) or quantitative (K). The Journal of Product Innovation Management is typically quantitative, while the Academy of Management Review stands out by being entirely qualitative.

	Qualitative, Q, or Quantitative, K	Model in Theory chapter	RQs/Hs in Theory chapter
Bachelor theses	8K, 3Q	4√	7√
One-year master theses	6Q, 2K, 1Q/K	9√	2√
Two-year Master theses	3Q, 10K	13√	10√
Journal of Strategic Marketing	3Q, 1Q/K, 6K	5√	5√
The Journal of Product Innovation Management	3Q, 8K	2√	6√
Strategic Management Journal	4Q, 6K	1√	5√
Academy of Management Review	10Q	7√	

Table 2. Text character, own.

Length and references

Table 3 shows that the articles are much shorter than the theses. The number of references are equivalent or fewer in the articles.

		Total length	Number of references
Bachelor theses	Average	72.4	83.5
	Variance	53-100	57-134
One-year master theses	Average	71.6	86.1
	Variance	48-85	48-169
Two-year Master theses	Average	81.6	105.2
	Variance	60-110	63-188
Journal of Strategic Marketing	Average	28.2	61.8
	Variance	18-54	21-112
The Journal of Product Innovation Management	Average	32.5	89.8
	Variance	10-50	23-140
Strategic Management Journal	Average	36.3	74.1
	Variance	24.2-50	30-111
Academy of Management Review	Average	38.56	126.6

		Total length	Number of references
	Variance	20-46	45-194

Table 3. Length and number of references, own.

Models

Models, to help identify and communicate research questions, RQ, or hypotheses, H, are the rule for master theses and the Academy of Management Review, while The Journal of Product Innovation Management and Strategic Management Journal, both primarily quantitative usually do not have models in their articles.

Research Questions and Hypotheses

In most cases, the theory chapter ends with [refined] research questions or hypotheses, even if there has been a [preliminary] problem formulated in the introduction.

Structure

Table 4 shows the structure of the texts. AMR stands out, because its objective is to develop theory, by theoretical reasoning rather than empirical studies. It can also be said that there are more spread in the importance of the theory chapter in all journals than in theses. Distinct empirical and analysis chapters play an insignificant role in the articles, but a more important one in the theses, while different forms of concatenations have an important role in the articles. As can be seen, there are as much variation within each type of text as between different types, possibly with the exception of AMR, which stands out. Almost all variance disappears in the scientific articles, when eliminating outliers. But there is no conclusive accepted structure for scientific texts. In journal articles the methodology I typically discussed very briefly.

		Intro	Theory	Intro + theory	Method	Empirical	Analysis	Method + empirical + analysis	Theory + method + empirical + analysis	Empirical + analysis	Conclusions /findings
Bachelor theses	Average	9.9%	26.8%		27.9%	6.3%	5.5%			13.9%	9.7%
	Variance	5.6%-15.4%	20.7%-35.2%		20.4%-33.3%	0-20.4%	0-16.7%			0-37.1%	4.3%-23.3%
One-year master theses	Average	9.5%	30.1%		15.7%	19.1%	14.9%			2.7%	8.1%
	Variance	6.9%-12.1%	18.5%-41.4%		11.9%-23.9%	0-40%	0-25.4%			0-24.1%	6.0%-10.9%
Two-year Master theses	Average	11.6%	26.2%		19.8%	8.0%	6.4%			15.2%	12.9%
	Variance	6.8%-16.7%	15.7%-40.6%		9.5%-40%	0-34.2%	0-22.9%			0-31.1%	5.5%-20.5%
Journal of Strategic Marketing	Average	9.5%	34.2%		6.0%	2.1%	3.9%	4.6%	6.9%	21.8%	11.0%
	Variance	1.5%-15.1%	0-83.0%		0-14.0%	0-20.7%	0-39.4%	0-46.0%	0-68.8%	0-84.5%	2.3%-19.3%
The Journal of Product Innovation Management	Average	10.7%	33.8%	2.6%	16.0%		1.0%			17.2%	18.8%
	Variance	6.5%-20.2%	14%-87.0%	0-29.1%	0-26.9%		0-10.7%			0-32.7%	3.2%-28.7%
Strategic Management Journal	Average	8.1%	23.2%	2.3%	12.4%			5.6%	8.1%	27.7%	12.6%
	Variance	0-13.9%	0-83.6%	0-22.9%	0-24.2%			0-56.3%	0-81.0%	0-62.3%	0-21%
Academy of Management Review	Average	12.0%	65.6%				2.3%				20.1%
	Variance	6.6%-18.5%	45.5%-76.5%				0-23.3%				8.8%-36.4%

Table 4. Structure, own.

3.3. Limitations

The sample on which this discussion is limited. The judgment was only made by the author but should be done independently by a panel of say three scientists. For some texts it is very difficult to follow a clear classification scheme, which could be a persisting limitation.

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APPENDIX

PROPOSED FRAMEWORK FOR A GOOD STUDENT THESES

1. Introductory chapter

1. Background

- a. Describe the phenomenon you are interested in.
- b. Why are you interested in this? I prefer to know that you 'burn' for your subject. You have a much better chance to make a good thesis then.
- c. Why does this subject have interest for others? Show with citations, e.g. from Financial Times, the Economist, Wall Street Journal, that CEOs and other managers in real companies think that this is an important problem. That is why should anyone read a thesis about this subject
- d. Why is it theoretically interesting, some recent references, that shows that this is of interest to the scientific community.

2. Problematizing.

This is the core of the introductory chapter. Give different perspectives on the phenomena, the perspectives of different stakeholders, etc. That is show the complexity of the phenomena. This is the foundation for the problem formulation and the delimitations. The problematizing should be some 75-80% of the introductory chapter.

3. Problem formulation.

The part of the complexity or the stakeholder perspectives identified in the problematization that chose to investigate in the thesis. This is a preliminary research question.

4. Delimitations.

What you are not planning to study of those aspects that you have shown in the problematization.

2. Theory chapter

1. What scientific concepts could possibly be important in explaining the problem formulation?
2. Literature review, under 1I.a., 1I.b., etc., you present the literature about the concepts/theoretical fields that you need. This is where you describe the theories – what they contain. This is the volume of the theory chapter. Here you describe the essence of what each theory says.
3. State-of-the-art, an evaluation of how the scientific community views the strength of the article in the literature review – best summarized in a table for each of these theories, divided after concept. I provide you with a simplified method on how to do this.
4. Reflection over the state-of-the-art.

What are the implications for your paper of the state-of-the-art statement? It gives you a problematization about how to use these articles.

5. Model.

A model is the relationship between important theoretical elements. Let us say that customer's retention is influenced by satisfaction with earlier acquisitions from the company and the word-of-mouth from close ties concerning their satisfaction with earlier purchases from the company and finally the reputation from weak ties. Then a model is that satisfaction word-of-mouth and reputation influences repurchases. The first three are 'independent' variables and the latter a 'dependent' variable. This can be drawn as an image where the three circles satisfaction, word-of-mouth and reputation each have a relation to re-purchase. This model is a visual tool to help frame good research questions or hypothesis and should show how the problem formulation is related to the concepts.

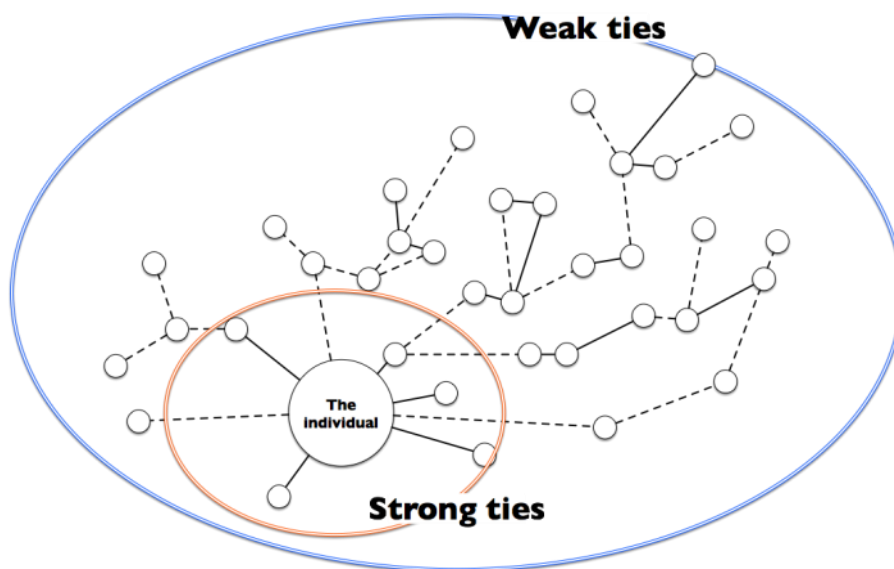


Image 3. Strong and weak ties, after Granovetter (1973)

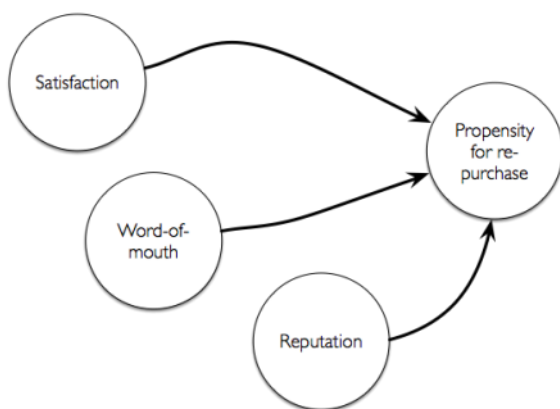


Image 4. re-purchase, own.

6. Research questions or hypotheses (maximum three). The model should help you identify and formulate these. These are a more precise than the problem formulation, as they are informed by the literature review and hence give the possibility to further funnel down the study.

3. Methodology chapter

1. Choice of research design. Which way of studying your research questions(s) is most suitable (Zelditch, 1962): Interviews, observations, queries, focus groups, secondary data or combinations of them (triangulation). Motivate the choice and describe how these affects the quality of the investigation.

2. What/who shall be studied? Population and sample.

“Sampling is the statistical process of selecting a subset (called a “sample”) of a population of interest for purposes of making observations and statistical inferences about that population” (Bhattacharjee, 2018-02-20:65).

What is the population that is concerned by the phenomena? Describe the population and what is known about it. Discuss how and why you will make a certain type of sample. If you make a convenience sample or a stratified sample, what control variables are suitable to understand to what extend the actually achieved sample is representative of the population. Motivate these choices and how these affect the quality of the investigation. This is important even if your sampling method does not allow you or your intentions are not to generalize. The reader should now which populations is concerned by the phenomenon.

3. Operationalizing of designing the ‘measuring instrument’.

“Operationalization is a process of designing precise measures for abstract theoretical constructs.” (Bhattacharjee, 2018-02-20: 22).

Describe how you will ‘measure’ the variables that you study with a distinct relation to theory, preferably in table format. Column heads: concept, references, items, motivation. You will to a large extent use dominating and emerging theories to find the items. Motivate the choices and discuss how they affect the quality of the study.

You should only ask the interviewees what they [can] know by their own experience, rumors (what they ‘understand’) are generally not interesting (unless these rumors in themselves are the study objective).

4. Analysis method. Discuss and motivates the choice of analysis method and how this choice affect the quality of the study. With analysis method is meant how you will analyze the empirical material. If you make a quantitative analysis of questionnaire data you might make an Anova-test, linear regression, or other statistical methods. If you make a qualitative analysis of interview data you can use some variant of grounded theory (Miles and Huberman, 1984; Corbin and Strauss, 1990; Glaser, 2002; or Philipson, 2013). There are many other variants, including triangulation that you might use.
5. Quality 'measures', e.g. validity and reliability, or dependability, transferability, confirmability, and goodness (Ryan et al., 2007). Discuss the total quality effects of the above choices under heading 1-4.

What I do not want in the methodology chapter:

- A "methodology book"; you should not discuss all possible alternatives, just motive your choices.
- Discussion about whether you're a positivist, post-modernist, etc. Firstly, because the dualism of Bryman and Bell (2011:15-23) is a caricature of theory of science; there are at least 30-40 major schools of theory of science, not just two. And secondly you are not schooled enough to give an informed choice, unless you have studied theory of science or philosophy.
- Don't tell the reader that you use qualitative or quantitative method. The choice of research design will result in qualitative or quantitative data, which then could be analyzed either with qualitative or quantitative analysis.
- All science is abductive; neither deductive, nor inductive. You must know the state-of-the-art, since you're influenced by it, whether consciously or not (– you are not a 'tabula rasa'). Hence the inductive approach is not permissible. And you must try to be open to information that does not fit with the theories, hence a purely deductive approach is neither allowed.

6. Ethical issues. Are there any elements of your data collection that invoke ethical issues. Which? How do you handle these?

4. Empirical summary

Summary of the empirical data. Not too much descriptive statistics! Put detailed empirical data in attachments. What you are looking for are patterns that need to be explained.

5. Analysis

What does the empirical data 'mean'? By going 'backwards' in the operationalization to understand the theoretical implications of the data and by identifying information that does not "fit" the theories. Descriptive data or pure "opinion polls" are not acceptable.

6. Conclusions

Conclusions about the research questions or hypotheses. Nothing else.

7. Reflections and managerial implications

Personal reflections and possible managerial implications.

CONSUMER BEHAVIOUR AND FOOD HABITS: EXPLORING OUT-OF-HOME FOOD WASTE

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ABSTRACT

Food waste is a serious issue which is hindering world sustainability and has recently been included in the UN Sustainable Development Goals. Previous studies have focused on home generated food waste, but little is known of food wasted out-of-home. In this study we focus on avoidable food waste generated by clients of restaurants, cafeteria and bars with the main aim of identifying the factors associated with waste generated out-of-home. Specifically, we report the results of an exploratory survey which involved 411 individuals residing in the Lazio region in order to analyze their (i) food waste awareness, (ii) attitudes and concern towards the phenomenon, (iii) out-of-home habits, (iv) self-reported waste quantification, (v) doggy bag use. Using a logit segmentation approach based on the GME estimator, we found that personal socio-economic characteristics play an important role in explaining out-of-home behaviour towards food waste. In addition, we found confirmation of the positive association between food waste awareness and smaller amount of food waste also generated out-of-home. Lastly, our results showed that doggy bag awareness could trigger less food waste.

Keywords: food waste, out-of-home waste, restaurant waste, client waste, consumer behaviour, food habits, entropy, GME, segmentation, logit models

INTRODUCTION

Why are we becoming more and more concerned about food waste issues? Just think that every year approximately 30% of world food production is wasted along the food supply chain (Gustavsson et al. 2011). This represents a huge economic cost of approximately 2,600 billion dollars if we also consider the hidden environmental and social costs related to the phenomenon (FAO, 2013). Indeed, the environmental impacts associated with food waste range from the energy waste – if food waste were a country it would be the third global greenhouse gas emitter after USA and China – to the waste of water and agricultural land and reducing it could save up to 30% of the arable land used annually to grow or farm food destined to be wasted (FAO, 2013). If we consider the social impacts associated with

food loss, we entering to the field of food security: the 815 million people that are still suffering hunger could be fed four times with the food wasted globally annually (FAO, 2013).

Therefore, policies implemented to reduce it, could be viewed as a “triple win” solution: it can save money for individuals, companies and smallholdings; it can mitigate hunger; it can save land, water and ultimately reduce climate change impacts, which is why in 2015 the United Nations decided to include food waste issues in its 12th target “Ensure sustainable consumption and production patterns” in order to halve per capita global food waste at retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses by 2030 (SDG 12.3, UNDP, 2016).

In developing countries food waste refer to as food loss and it mainly occurs in the first stages of the food supply chain due to poor infrastructures and inadequate investments, while in developed countries food waste occurs in the final part of the food supply chain, that is at retail or consumption level (Gustavsson et al. 2011; Parfitt et al., 2010).

Our study focuses on food waste at consumption level, which mainly depends on individual attitudes towards the phenomenon (Mondéjar et al., 2016; Principato et al., 2015; Parfitt et al., 2010; Griffin et al., 2009; Gustavsson et al., 2011). In Europe, after household waste, food wasted out of home is the second source of food waste during the consumption phase (Brautigam et al., 2014; Monier et al., 2010). A similar trend is observed in Italy, where restaurant waste amounts to 21% of total waste (Coldiretti, 2017). In addition to these findings, more attention should be payed to consumer food waste generated out-of-home since in Italy out-of-home food consumption well exceeds 35% of the total consumption of households with a moderate yet steady upward trend (FIPE, 2017). The data by the Italian Federation of Public Exercises (FIPE, 2017) revealed that households spent approximately €80,254 million on restaurant services in 2016 showing an increase (in real terms) of 3.0% compared to the previous year. Household consumption in restaurant services recorded a real increase of 3.5%, equal to 2.4 billion euro, also for the 2007-2016 period.

It is important to note that Italian out-of-home consumers can be divided into 3 segments (FIPE, 2017): i) *heavy consumers*, over 13 million Italians who consume at least 4-5 meals out-of-home per week; ii) *average consumers*, approximately 9.7 million Italians who consume at least 2-3 meals out-of-home per week and iii) *low consumers*: 16.5 million consuming (at least) 2-3 meals out-of-home per month.

Although the household food waste phenomenon has been widely investigated and in-home behaviour carefully analyzed, food waste generated by the hospitality sector such as food wasted in restaurants, bars, hotels, catering services and canteens, is yet to be investigated (Pirani and Arafat, 2016; Schneider, 2013). In fact, the few studies carried out have focused on the amount of food wasted out of home rather than the factors underlying it (Heikkila et al. 2016).

Food waste at restaurant level occurs during the food preparation or consumption phase (Risku-Norja et al., 2010; Papargyropoulou et al., 2016) because food is discarded when it is cooked or processed (kitchen food waste - KFW) and/or left on plates by clients (client food waste - CFW) (Principato, 2018; Marthinsen et al., 2012; Pirani and Arafat, 2016). According to a recent study, client waste accounts for 34% of the total wastage in restaurants, thus representing one of the most important drivers of food waste at this level (WRAP, 2013b). Some initial studies focused on KFW with the aim of (i) understanding how restaurant managers deal with food waste (Principato et al., 2018), (ii) improving the accuracy of fresh food inventory forecast and storage conditions (WRAP, 2013b), (iii) proposing different portion sizes according to client's needs and helping them to understand their actual hunger level in order to avoid leftovers (WRAP 2013b; Sustainable Restaurant Association, 2010). However as yet few studies have directly involved clients, in order to understand their out-of-home food habits as well as attitudes and behaviour concerning food wasted when eating out.

For this reason, we focused on client avoidable food waste generated in restaurants, cafeteria and bars (offering table service thus excluding buffet and takeaways) in order to identify the factors associated with out-of-home waste. More specifically, we report the findings of an exploratory survey carried out on 411 individuals in Lazio region investigating their (i) food waste awareness, (ii) attitudes and concerns towards the phenomenon, (iii) out-of-home habits, (iv) self-reported waste quantification and (v) doggy bag use.

The remainder of this paper is structured as follows. Section 2 presents the conceptual framework used to conduct our survey. Section 3 focuses on the data collection process, descriptive analyses and the methods used. Section 4 reports the results obtained and provides some policy and managerial suggestions which may provide us with valuable insight on the topic which may be useful tools for practitioners and policy makers. Lastly, in Section 5 some conclusions are drawn.

BACKGROUND: FOOD WASTE AWARENESS, OUT-OF-HOME HABITS AND DOGGY BAG USE

As previously mentioned, food waste could be seen as a "low hanging fruit", that is reducing it could be achieved with little effort and bring benefit to numerous actors, i.e. companies, farmers/smallholdings and individuals as well as the environment itself (Sakaguchi et al. 2018). Moreover, food waste occurs for several reasons and cannot be seen as the result of a single incorrect behaviour (Secondi et al., 2015; WRAP, 2011; Quested et al., 2013).

Bearing this in mind, we built a conceptual framework on which to base our survey exploring the following issues: (i) *food waste awareness*, (ii) *attitudes and concerns*, (iii) *out-of-home habits*, (iv) *self-reported waste quantification*, (v) *doggy bag use*., which are further discussed below.

(i) Food waste awareness

Recent years have seen an increase in food waste awareness (Sakaguchi et al. 2018), in fact a recent study demonstrated that the more youths are aware of the phenomenon, the more they are likely to reduce their leftovers (Principato et al., 2015), therefore we decided to include this variable.

(ii) Food waste attitudes and concerns

Food wasted also translate into significant economic losses for the hospitality industry. A study conducted in the UK found that the economic costs of food procurement, labour, utilities and waste management amounted to more than 682 million pounds per year (WRAP, 2013a), which also considering the environmental impacts related to food waste it is clear that reducing it could greatly improve the sustainability of our planet (Heikkila et al. 2016).

As some studies show that individuals with pro-environmental attitudes and civic sense tend to waste less food (Williams et al., 2012; Parfitt et al., 2010; Barr, 2007), we included food waste attitudes and concern related to its impacts as variables in the framework.

(iii) Out-of-home habits

According to a recent survey, almost 50% of the global population eat out at least once a week, a trend which is increasing annually due to the changes in our lifestyles as we spend less time at home and are less inclined to prepare our meals (Nielsen, 2016). Western countries like Italy - where out of home consumption accounts for more than 35% of the total food consumption (FIPE, 2017) - are more affected by this phenomenon which is increasing annually (FIPE, 2017). Similar findings can be seen across Europe where 37% of total of food costs (FIPE, 2017) originate from out-of-home consumption.

In 2017, 77.3% of Italian adults ate out of home and approximately 22% of them consume at least four or five meals away from home per week (FIPE, 2017), therefore it is essential to take into consideration individual dining habits and to promote awareness on the food wasted out-of-home.

(iv) Self-reported waste quantification

In order to quantify the amount of food wasted by restaurant clients, we included a self-reported waste measure to provide us with a general indication on the amount of clients' leftovers. Indeed, indirect measurement through surveys has proved to be a useful tool for combining self-reported (subjective) measures and qualitative information related to food waste (Secondi et al, 2015).

(v) Doggy bag use

From the client's perspective, doggy bags are useful for taking leftovers home to be eaten at a later date. In Western (Northern) Countries (such as UK or USA) this is a socially accepted and widespread practice. On the contrary, in Mediterranean countries (like Italy) it is not commonly accepted. In fact, 22% of Italians consider doggy bags to be unsophisticated and feel embarrassed to ask for them

(Coldiretti, 2017; Sirieix et al., 2017). Similarly, according to another study carried out in Italy, 41% of the respondents admit to being embarrassed about asking for their leftovers (Last Minute Market, SWG, 2016). Some specific policies regarding doggy bag have recently been implemented in some European Countries like Italy and have obtained good results (EIU and BCFN, 2017) yet there is still much progress to be made.

OUT-OF-HOME WASTE: DATA AND DESCRIPTIVE ANALYSIS

The data collection process and the case-study

With the aim of investigating out-of-home food waste from a consumer perspective, an exploratory sample survey was carried out which analyzed individual habits and behaviour when consuming meals away from home.

The survey took place between March and June 2017 with the main focus on the territory of the Lazio region in Italy. The data were collected using a web-based questionnaire constructed ad-hoc for the survey and composed of 30 questions (mainly multiple-choice questions). Bearing in mind the conceptual framework, the questions were organized into the following 5 sections: i) knowledge and awareness of the food waste phenomenon; ii) out-of-home habits in terms of occasions, types of restaurants and number of times individuals eat out for lunch or dinner and number of courses (dishes) they ordered on average; iii) estimated quantity (in percentage terms) and motivation of waste, the respondents' opinions on the reasons causing clients' and personal waste in restaurants; iv) awareness of doggy-bag and national regulations concerning domestic food waste; v) personal data and socio-economic characteristics.

The research has therefore been characterized by a voluntary participation in line with its exploratory dimension. Even if it represents a limitation of this study, the non-probabilistic sampling design enabled us to describe the out-of-home food waste phenomenon which has yet to be fully explored.

415 respondents volunteered to participate in our survey and after checking the validity and reliability of the data we considered 411 responses were considered. Although the participants recruited cannot be used for inferential purposes, it is important to note that the sample obtained is in line with the segmentation introduced by FIPE (2017) which distinguishes consumers who eat out-of-home into *heavy*, *average* and *low* consumers. Indeed, approximately 29% of the participants were aged between 15 and 24 years (the typical age of "average" out-of-home consumers) while 70% of the participants were under 45 years of age (the typical age of "heavy consumers"), while 5% of the participants were aged 64 and over thus providing us with a group of "low out-of-home consumers".

The age characteristics underlying our sample strategy composed a sample in which the average age is 38 years (standard deviation 15.82) and approximately 49% of the respondents were employed, 31%

students, 10% job seekers and the remainder were housewives and pensioners. Regarding marital status, most respondents (51%) were single/unmarried, 35% married, 8.8% cohabitants and the rest were either divorced or widowed. Approximately 38% of the participants had one or more children.

Wasting food out-of-home: composition, motivation, habits and re-use of leftovers

The results of the survey show that approximately 11.7% of the food ordered was not consumed (standard deviation 11.35), with a median value equal to 10% and a range of observed values between a minimum of 0 (no waste at all) and a maximum of 70% which represents an outlier value as observed in Figure 1. Indeed, by restricting the analysis to the central part of the distribution (between the first and third quartiles), it is evident that 50% of the respondents declared a percentage of out-of-home food wastage between 2 and 20% of the food they ordered.

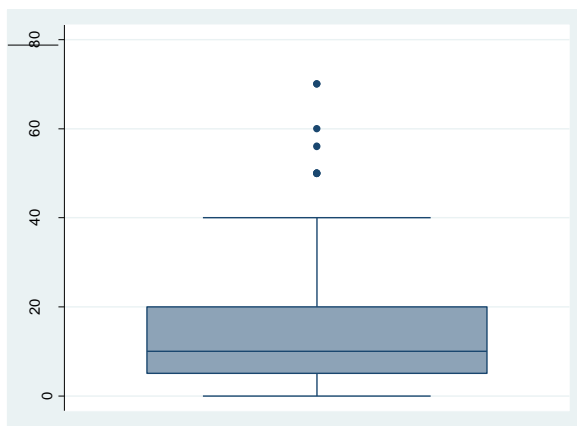


Figure 1. *Percentage of food individuals waste when eating out-of-home*

Interesting insights emerge from waste generated by the various courses and by distinguishing starters, first and second courses, pizzas, side dishes and desserts. Figure 2 summarizes the distribution of responses: each individual indicated the level (none, low, moderate, high) of the waste they generate for the different courses in terms of in terms of leftovers. By observing the distribution of waste for starters, approximately 69% of the participants declared that they did not leave any leftovers. A higher percentage of respondents –approximately 75% – also declares that they did not leave any desserts.

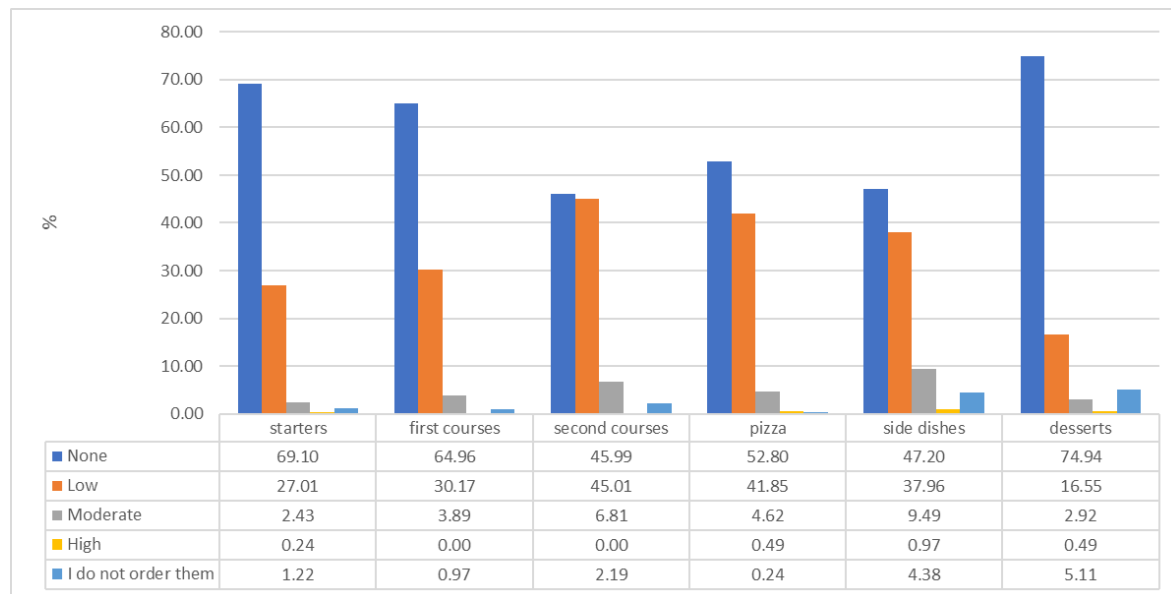


Figure 2. Could you indicate the percentage of waste for each type of dish?

By focusing the analysis on the “moderate” and “high” categories, it was observed that side dishes and second courses are the courses most commonly left by clients.

As regards pizza, 52.8% of the respondents declared that they did not leave any pizza on their plates yet over 5% declared that “moderate” or “high” amounts of leftovers are generated from this type of dish.

The questionnaire also investigated whether more leftovers were generated at lunch or dinner. More than 30% of the respondents declared that *“they think they waste when dining out than when having lunch out-of-home”* while only 5% of respondents declared the contrary. It is interesting to note that there is a percentage of 32% of respondents who were not able to distinguish the percentage of food they waste when consuming lunch or dinner out-of-home. Lastly, the remaining respondents declared that *“I believe I waste the same amount when I eat lunch or dinner out”*.

When we investigated the reasons for out-of-home waste in terms of food leftovers, we asked the participants to distinguish between three main motivations: *i)* sense of satiety; *ii)* food preferences; *iii)* gap between expectations and effectively served/consumed dishes. These issues were explored by proposing a 5-point Likert scale ranging from “extremely disagree” to “extremely agree”. By analyzing the distribution of responses and specifically focusing on the categories “agree” or “extremely agree”, it is evident that the most common reason of restaurant leftovers was the sense of satiety (approximately 62% of the respondents declared to agree or extremely agree) followed by food preferences (48%) and the mismatch between the dishes ordered and served (35%).

Regarding recovery and re-use of unconsumed restaurant food it was surprising to observe that only 3% of the respondents were in favour of using the doggy bag because they prefer to consume the leftovers later as they do not like wasting food; 5% of the participants were favourable but are ashamed

to ask for one. On the other hand, about 61% were unfavourable as they would not eat their restaurant leftovers in any case, while the rest were unfavourable because they consider it an unsophisticated practice.

MODELLING OUT-OF-HOME BEHAVIOUR TOWARDS FOOD WASTE: AN ENTROPY-BASED APPROACH

Is more food wasted at home or out-of-home?

As discussed in previous sections, consumers are responsible for large amount of food waste. An important issue to consider is out-of-home consumer behaviour towards food waste, we therefore asked the participants to compare the amount of food they waste at home and the amount of food left on their plates when they have lunch or dinner out. Approximately 41% of the participants declared they waste more at home than out-of-home; 22% waste more out-of-home than at home while 23% of the respondents declared that they waste the same quantity of food at or out of home. Lastly, the remaining 14% of respondents declared they were not be able to compare the food they waste in both situations.

In order to analyze the consistency of the responses concerning levels of out-of-home waste, we carried out a non-parametric ANOVA on rank using the Kruskal-Wallis rank test, the results of which (Chi-squared 39.576, $p\text{-value} < 0.001$) confirmed that consumers who declared to waste more food out-of-home are effectively those that produce the greatest amount. Figure 3 highlights this evidence from a descriptive perspective.

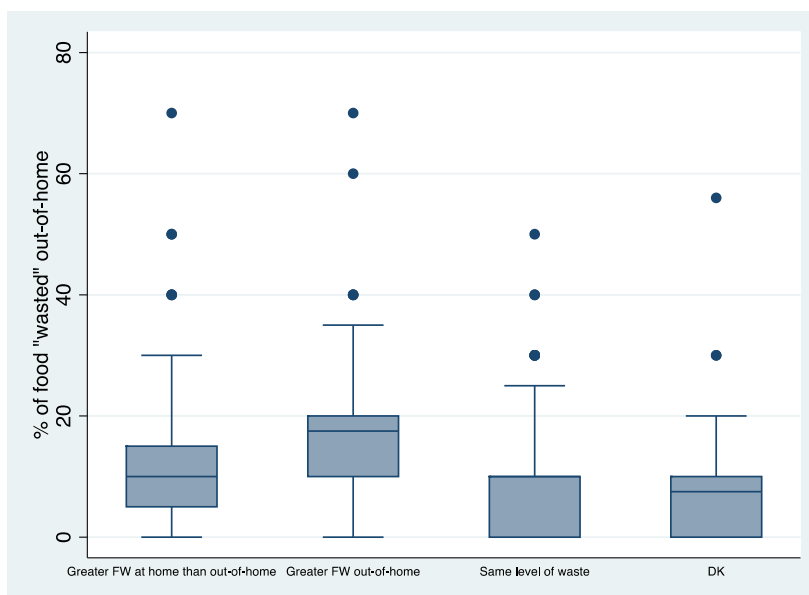


Figure 3. *Percentage of food not consumed when having meals out-of-home: distinction by levels of waste*

The results obtained motivated us to further investigate this phenomenon and specifically to explore factors characterizing individuals who waste more out of home than at home.

The GME logit approach: a segmentation perspective

Bearing in mind the exploratory nature of our study as well as the relatively little knowledge concerning out-of-home consumer food waste, we used the segmentation approach by using logit models (Chen and Hsu, 1999) with the aim of identifying the factors associated with the above-mentioned issue. Indeed, the results represent a starting point for further in-depth studies on this issue. By considering the distribution of responses to the question concerning the amount of food wasted when eating at or out of home, we constructed a dichotomous variable which was equal to 0 if the amount of waste generated at restaurants was less than the waste generated out-of-home while the variable was equal to 1 if the amount of waste generated out-of-home was more or equal to the waste generated at home.

From a statistical perspective, we carried out the estimation of logit model within the Generalized Maximum Entropy (GME) framework for various reasons. Firstly, traditional Maximum-Likelihood logit formulations define a parametric structure on probabilities (Corral and Terbish, 2015) which corresponds to the logistic cumulative density function linking the probabilities p_{ij} with the linear structure $\mathbf{x}_i' \boldsymbol{\beta}_j$. Indeed, using the GME method enabled us to overcome this constriction and to not specify restrictive moments and distributional assumptions for error components while using all the data points as information in the optimization problem (Golan, 2008; Golan et al, 1996a). Secondly, this estimator proved to be particularly suitable for limited samples (even in ill-posed situations) and when covariates are highly correlated (ill-conditioned problems) as underlined by Golan et al (1996a) and reported by Corral and Terbish (2015).

The estimation of logit models within the GME framework is included in the general multinomial framework for unordered discrete choice data. The special case of logit models involves a dichotomous dependent variable. As specified by Corral and Terbish (2015) we consider p_{ij} the probability of alternative j for individual i being related to a set of covariates such as:

$$p_{ij} = \text{Prob}(y_{ij} = 1 | x_i, \beta_j) = F(\mathbf{x}_i' \boldsymbol{\beta}_j) > 0 \quad \text{for } i = 1, 2, \dots, T; \quad j = 1, 2, \dots, J$$

where $\boldsymbol{\beta}_{ij}$ is a $(K \times 1)$ vectors of unknowns, \mathbf{x}_i' is a $(1 \times K)$ vector of covariates, and $F(\cdot)$ is a function linking the probabilities p_{ij} with the covariates $\mathbf{x}_i' \boldsymbol{\beta}_j$, such that $\sum_j F(\mathbf{x}_i' \boldsymbol{\beta}_j) = 1$. By including in the above equation an additional noise component leads to:

$$y_{ij} = F(\mathbf{x}_i' \boldsymbol{\beta}_j) + e_{ij} = p_{ij} + e_{ij} \quad [1]$$

for which the indirect empirical measurements on the noisy observable \mathbf{y} and the known covariates \mathbf{x}_i must be used to recover the unknown and unobservable \mathbf{p} and \mathbf{e} . When formulating the GME approach to the multinomial choice problem, the information contained in the matrix \mathbf{X} of covariates are introduced in the model described by [1] which involves the data points, y_{ij} . According to Golan et al. (1996), the introduction of this information is carried out by transforming the statistical models into the following linear (in \mathbf{p}) ill-posed inverse problem with noise:

$$(\mathbf{I}_j \otimes \mathbf{X}') \mathbf{y} = (\mathbf{I}_j \otimes \mathbf{X}') \mathbf{p} + (\mathbf{I}_j \otimes \mathbf{X}') \mathbf{e} \quad [2]$$

The estimation of the model within the GME framework by referring to Shannon's entropy firstly requires the re-parameterization of the unknown terms. Since \mathbf{p} is already in probability form, we only need to reparametrize the elements of \mathbf{e} by defining the support space $v = (-1/\sqrt{T}, 0, 1/\sqrt{T})$ with corresponding probabilities w_{ij} to be estimated such that $e_{ij} = \sum_m v_{ijm} w_{ijm}$ where $\sum_m w_{ijm} = 1$.

The maximization of the joint entropy (signal and error terms) subject to the data constraints and the normalization constraints lead us to obtain the estimated p_{ij} and w_{ijm} and therefore the $\hat{\beta}_j$ and \hat{e}_{ij} . It is worth noting that the estimation results are reported in terms of AMEs which provide information about the impact of each x on the probability of a positive outcome (Corral and Terbish, 2015).

Estimation results

Table 1 shows the estimation results of the GME logit model by reporting the AMEs, standard error and level of significance divided into three levels: 10% (indicated in Table 1 with *), 5% (**) and 1% (***). It is worth noting that the results showed the association between variables while causal relationships cannot be extrapolated. The estimation process was carried out using STATA 14.0 software and the tools introduced by Corral and Terbish (2015).

On analyzing the obtained AMEs, significant relationships emerged between attitudes towards food waste and generation of out-of-home waste. In fact, individuals who are not aware of the food waste issue (by selecting the category "disagree") are more likely to produce larger amounts of waste out-of-home (AME=0.311) than at home. On the other hand, extremely agreeing with the same sentence is negatively associated with the dependent variable: therefore, individuals who are aware of the food waste phenomenon are more likely to generate a small amount of out-of-home waste.

Moreover, awareness concerning the economic and social consequences of food waste is significantly associated with out-of-home waste. As a general result, it was observed that the higher the level of agreement the lower the likelihood of wasting "more out-of-home than at home".

	AME	SE	P>z
Food waste attitudes and concerns			
Awareness towards food waste diffusion (ref. Extremely disagree)			
Disagree	0.311	0.144	**
Neither agree nor disagree	0.129	0.098	
Agree	0.078	0.057	
Extremely agree	-0.510	0.033	***
Reduction of food waste as economic opportunity (ref. Extremely disagree)			
Disagree	-0.395	0.120	***
Neither agree nor disagree	-0.285	0.168	*
Agree	-0.289	0.149	*
Extremely agree	-0.302	0.160	*
Reduction of food waste = correct behaviour towards food security (ref. Extremely disagree)			
Disagree	-0.499	0.064	***
Neither agree nor disagree	-0.486	0.078	***
Agree	-0.478	0.069	***
Extremely agree	-0.497	0.082	***
Food waste as negative impact on environment (ref. Extremely disagree)			
Disagree	-0.154	0.291	
Neither agree nor disagree	-0.091	0.306	
Agree	-0.021	0.309	
Extremely agree	-0.079	0.311	
Out-of-home habits and doggy bag			
Number of times you eat out-of-home per month (ref. Up to 2)			
3-5	0.068	0.059	
6-10	0.086	0.075	
>10	-0.100	0.105	
Importance of the sense of satiety as a cause of food waste in restaurants (Ref. Extremely disagree)			
Disagree	0.097	0.093	
Neither agree nor disagree	0.231	0.084	***
Agree	0.175	0.087	**
Extremely agree	0.056	0.118	
Doggy bag knowledge (ref. Yes)			
No	0.109	0.057	*
Personal characteristics			
Gender (ref. Female): Male	0.066	0.054	
Age	0.003	0.002	
Household net income (ref. Up to 12,000 Euros)			
12,001-24,000 Euros	0.089	0.122	
24-001-36,000 Euros	0.235	0.115	**
Over 36,000	0.105	0.112	
Don't know (DK)	0.273	0.111	**
Not specified/response not given	0.123	0.107	
Marital status (ref=married)			
Divorced	-0.282	0.115	**
Widowed	0.046	0.249	
Unmarried	0.240	0.078	***
Cohabitant	0.212	0.090	**
Number of children (ref. No children)			
1	0.011	0.093	
2	0.156	0.088	*
3 and more	0.151	0.147	
Professional status (ref. Employed)			
Job seekers	-0.003	0.184	
Housewives	-0.124	0.132	
Students	-0.243	0.086	***
Pensioners	-0.169	0.085	**

Table 1. GME logit estimation results

Doggy-bags could help to reduce out-of-home waste. In fact, it was observed that individuals who replied that they “did not know about doggy-bags” are more likely to waste more food out-of-home than at home.

Lastly personal characteristics play a significant role in explaining out-of-home behaviour towards food waste. An interesting result was found for income levels: individuals with an annual household income between 24 and 36 thousand Euros are more likely to waste large amount of food when eating out ($AME=0.235$) compared to individuals an annual household income lower or equal to 12 thousand Euros. A similar result was obtained for those individuals who declared not to know (DK) their annual household income ($AME=0.273$).

Divorced/separated individuals proved to be less likely to waste more food out-of-home than at home while unmarried individuals and cohabitants were more likely to generate more waste out-of-home than at home.

Concerning professional status, it was observed that pensioners are less likely to waste more out-of-home than at home ($AME= -0.169$) and a similar result was found for students ($AME=-0.243$) compared to employed people, yet further research is required for this issue.

The goodness of fit of the model was assessed using the normalized entropy measure (Golan et al, 1996) as a measure of uncertainty reduction. The specified model for explaining factors associated with out-of-home waste gave us a value of the normalized entropy equal to 0.846 thus indicating a departure from uniform distributions and therefore a reduction in uncertainty due to the selected covariates introduced in the model. Moreover, the Entropy Ratio Statistic equal to 75.5 ($p\text{-value}<0.01$) confirmed that a satisfactory amount of information was explained by the estimated model.

CONCLUDING REMARKS

Our study confirms the positive association between food waste awareness and smaller amount of food wasted out-of-home. We showed that gender is irrelevant as no significant differences were found between male and female waste generation. On the other hand, income level proved to be relevant as the higher the household income level the higher the probability of generating large quantities of food waste out-of-home. Lastly, we demonstrated that doggy bag awareness could trigger less food waste.

There are some limitations of our study due to the exploratory nature of the survey since both the sample strategy (voluntary participation) and the limited sample area prevented us from using the for inferential purposes. However, we believe that the findings obtained may help us to implement more robust and in-depth surveys on this important issue.

Further research should focus on the difficulties for some groups of people such as individuals residing in some of the countries in the Mediterranean basin to ask and use the doggy bag as a widespread

practice. We believe that this issue should be explored by the social norms literature, since it was observed that many people are too ashamed to ask for one.

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MANAGEMENT INCENTIVES IN UNLISTED COMPANIES: AN EMPIRICAL INVESTIGATION

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ABSTRACT

The present work aims to analyze the strategy for managers' incentives, with special regards to unlisted companies. This is a relevant topic, because of the importance of aligning the interests of managers as much as possible with the creation of sustainable value for the enterprise. After a general review of compensation strategies and a specific insight about the differences in remuneration approaches for listed and unlisted companies, a survey is presented, which has been employed to verify the level of implementation of the described policies within unlisted companies. It was sent to 80 unlisted companies, among which 20 replied. The results of survey are then described, covering several topics, among which the industrial sector, the size of the company, the geographical areas of production, the period since when the incentive system is applied, its observed effectiveness, the business areas in which it is used, the type and the entity of the incentives. The lack of a market that can "evaluate" the company is certainly an element not to be underestimated, but if the key drivers of value are correctly identified, even smaller, unlisted companies can develop incentive policies that allow them to be more dynamic, attracting and able to motivate the high qualified professional figures, reducing the agency problems.

Keywords: Management Incentives, unlisted companies, survey, remuneration, agency

INTRODUCTION

In the current complex and changing economic situation, the growing demand for competitiveness must be met by companies focusing on the human factor. Adopting corporate social responsibility (CSR) practices is not only possible, it is also necessary and frequently profitable (Chatzoglou et al., 2017)

Taylor (1914) believed that the workers' motivation was mainly due to their interest in money. Subsequent field research, e.g. MacGregor (1960), Trevino (1986), Bowen (2013), has demonstrated not only the inadequacy of this theory, but has also highlighted the crucial importance of organization, social responsibility and attention to the needs of workers. We can therefore conclude that if the worker

feels involved in the entire business process and feels satisfied with some of his or her emotional needs, he or she will certainly contribute actively with commitment and conduct to achieving the company's business goals.

The objective of the present work is to analyze how the above concepts have been implemented by unlisted companies in the territory in their compensation policies for managers and relevant personnel. In particular, all the areas that make up compensation have been analyzed, such as remuneration, well-being in the workplace, training, the satisfaction of one's own needs and for each director we have evaluated the effects both on the company and on the workers themselves.

With regard to remuneration policies, the approach of the companies to fixed and variable remuneration have been investigated. For the latter, linked to the achievement of specific objectives, the incentive processes underlying this policy has been analyzed in details. In particular, the precautions that companies must take to prevent managers from taking excessive risks have been examined, in order to achieve their personal short-term goals and often independently of the companies' sustainability. In the course of this research the Pay-Performance link has been studied, showing how the sector and the size can influence the incidence of variable remuneration with respect to fixed remuneration. When it comes to the company's performance, it is shown that pay is not enough to ensure that all workers operate in accordance with the company's strategic objectives. There are other reasons and levers that need to be considered in order to achieve this goal, and some of them will be covered. The work is based on a survey, conducted on 38 unlisted companies, aimed at assessing how these companies have implemented the remuneration strategies described above. Other works have studied similar topics, e.g. in Joubert & Fakhfakh (2014) it has been investigated whether or not there is a link between CEO incentive-based compensation and earnings management. In Britzelmaier et al. (2013) the remuneration of management in the financial crisis has been studied. In this vein, a specific questionnaire was prepared and, along with an accompanying letter, it was sent to 80 companies, to collect the necessary information. Some of the companies gave their availability to have a meeting to give even more information about their policies to remunerate the managers. The work ends with some considerations about the values that the entire organization must be able to spread by demonstrating that it adopts policies consistent with ethical regulations, not only to increase value for shareholders, but especially to advance the sustainable development of a country.

COMPENSATION STRATEGIES

Qualified and motivated human resources are crucial to create value in the company: to motivate them the compensation process must be well planned and implemented. It consists mainly of two parts: strategy and compensation policy.

By focusing on managers, compensation strategies represent the identification of the objectives to be achieved and consequently the salary level associated with them. This is the preliminary stage in the whole process which allows to realize the business objectives of the company but also other objectives: spreading the corporate culture and skills, improving the organizational capacity and competitiveness of the company, ensuring greater flexibility based on the needs of staff. In reality the company culture and remuneration policies influence each other. On the whole, the management of the company, which also includes the remuneration system, makes it possible to develop greater skills and thus improve competitiveness on the market. Following the definition of the objectives it is necessary to establish which operations are suitable for their achievement, the greater the capillarity and detail of the planning, the more punctual may be the evaluation of the results achieved and consequently the definition of the incentives.

The compensation policy represents the manner in which the compensation strategy is applied. As summarized in the diagram on the following page, implementation takes place using a series of tools that aim to implement what has been defined in the design phase.

The compensation strategy, therefore, is a lever available to management through which it must seek to support the achievement of business objectives pursued by the company.

Incentives can be divided according to two main categorizations:

- tangible or intangible: monetary remuneration and benefits are to be included in tangible resources, while learning, career and working environment are to be considered intangible;
- individual or group: the former include pay, learning and career, while the latter include benefits and work environment.

As already mentioned, remuneration elements are divided into fixed (basic) components, variable ones and benefits. Each of these categories can be further distinguished into:

- money and/or in kind;
- Immediate or deferred, depending on the timing.

It is also important to remember that the compensation strategy is an appropriate means of achieving other minor objectives which may be fundamental within the organisation. Among them:

- Communication of corporate culture;
- Promoting the dissemination of skills;
- Increase of overall organisational capacity;
- Increasing the competitiveness of the organisation;
- Meeting the need for flexibility required by staff.

With regard to the first point mentioned, the company culture certainly influences remuneration policies and in turn the latter communicate something of the company's culture and business strategy.

Moreover, since remuneration is an important element of a company's management system, it can facilitate the creation of an environment in which experience and skills are shared and whose dissemination contributes to making the organisation more competitive by improving the company's position on the market. Lastly, the compensation system has the capacity to influence the performance and development of a company, as highlighted by Cascio (2018) and Memili et al. (2013), which emphasizes the ability of compensation to achieve the objectives set out in the compensation strategy.

It emerges that there is a positive correlation between the allocation of stock options to personnel and corporate innovation. Also the number of patents registered by companies are influenced by stock options and, finally, the management of the remuneration package makes it possible to create more or less flexible links with employees, depending on how the remuneration package is composed and on the weight that the fixed component assumes with respect to the variable component.

The definition of objectives and policies to implement them is rather delicate, in fact, in case of negative results could be compromised the image of the company itself. With the global economic crisis of 2008, public opinion criticized the remuneration policies adopted by certain companies, in particular with regard to the remuneration of management.

It had emerged that high salaries were not matched by better long term performance, but on the contrary there was an increase in the risk taken by the manager who may have contributed to the outbreak of the crisis. The variable part of remuneration was used by directors to obtain benefits that were sometimes illegal and undeserved. The pay gap, the difference in pay between management and other employees, was also the cause of controversy because of the strong increase of it in the years before the financial crisis.

Top manager's compensations in some cases didn't adequately consider the risk to run to achieve short term performance, pushing the managers to invest in too high risky activities or to have a too high debt/equity ratio. The free rider risk was often undervalued.

The company also gives its image through the salaries paid to its employees because, if incentives were recognized too generous (and not deserved), this element would bring out a negative connotation of the company towards the external environment.

In this regard, it is necessary that the company also assess, in outlining its objectives, the achievement of a certain degree of transparency towards the outside with reference to its own remuneration practices. Once the objectives to be pursued through the management of remuneration have been defined, it is necessary to determine which orientation to adopt with respect to the various options inherent in the structure of the compensation system.

FIXED REMUNERATION

Fixed remuneration is defined (Cutillo et al., 2012) as “the minimum value that the reference organisation attributes to a specific individual, consistent with the professionalism required for the role held and with professional experience”. From the perspective of the recipient, however, this amount is considered as the amount of minimum income intended to ensure the financial needs and general cost of living in a given social, economic and geographical context. It can be deduced that the fixed part is the basis of the remuneration system, but is not the most relevant, especially for managers for whom the size of the variable part is very important.

The setting of a rather high level of fixed remuneration, while on the one hand it constitutes a factor of rigidity that weighs on the income statement especially in periods of contraction of revenues, on the other hand it allows more flexibility in the variable component, which may not be paid at the limit (Haque, 2017). This approach is also consistent with the new provisions of the FSB (Financial Stability Board), since the variable portion of remuneration had caused distortions in managerial behaviour. The determination of the fixed component, which must be large enough to attract qualified managers, must be reasonably proportionate to current and general financial objectives, such as to form the reference point on which to build the variable component of remuneration. The purpose of this strategy is to discourage opportunistic behaviour by managers and discourage excessively risky choices by shareholders that could compromise medium/long-term company performance.

The determination of the fixed remuneration is the result of:

- an objective assessment, "proposed by the systems of professional qualification and classification resulting from collective bargaining or, with regard to roles with a high professional content;
- a subjective evaluation by internal company bodies (e.g. the Remuneration Committee) taking into account a large number of factors, which express the level of performance, skills, potential and often the level of seniority;
- an evaluation by the market and the dynamics in vogue in the specific business sector.

The fixed component is therefore a function of three factors:

- The average salary in the market for that position;
- The value that that specific position has in the company's strategy;
- The individual value of the person, including the skills, professionalism and experience he/she brings with him/her. In the definition of basic salary, it is fundamental to consider the "weight of the position" at work, which can be evaluated through numerous techniques: quantitative or job evaluation (such as the scoring method, the factor comparison method, the Hay method); qualitative (such as the classification or job ranking method, the classification method or job grading); comparative (comparison with similar job positions in the same reference sector).

Moreover, regarding the level of remuneration, another crucial issue to take into account is the 'geographical location of the business', i.e. the different cost of living in different parts of the world. This leads to the establishment of more or less uniform wage conditions, which can, however, in highly competitive conditions, lead to the phenomenon of maxi wages. Therefore, the need to safeguard the strategic positioning in the market can often push companies to implement very aggressive rewarding systems that, in unfavourable economic conditions, can compromise the competitiveness of the company itself.

VARIABLE REMUNERATION

Variable remuneration systems are a rewarding factor used to motivate and incentivise staff to achieve specific objectives and thereby achieve expected results (Larsson, 2017).

In the past, this process has led the managers of some sectors of the company to take excessive and dangerous risks in order to achieve the intended objectives and consequently to benefit from the payment of premiums regardless of the overall final results of the company even if it was bankrupt.

What has often escaped attention, however, was the awareness that such mechanisms must be used to "achieve benefits of organizational efficiency but especially effectiveness". The main problem is that managers often work to achieve their own short-term objectives without considering the overall value of the company in the medium to long term.

The criterion for the payment of variable remuneration is normally based on a time order. However, this is not the only form, as up to four categories can be identified on the basis of (Gabrielli, 2013):

- the main objectives pursued by the reward schemes: to identify, valorise and reward both short-term efforts and excellence in performance, to generate a sense of long-term belonging; to retain the best talents, increasing their exit costs and acquiring talents from competing companies; to increase the sense of responsibility and involvement in organisational processes;
- the type of benefits: monetary (cash or lump sums); equity (share-ownership plan, stock option plan, share based profit share); bond based profit sharing: when the employee becomes holder of a right to claim incorporated in the obligation assigned to him;
- the recipients of the variable instruments that may be: individuals, as is the case for top managers for whom the remuneration package is highly personalized; narrow-based schemes or groups of professionals; all staff (board based schemes).
- the source of the initiatives: the variable fraction may be added at the proposal of management, trade unions in collective bargaining, the national legislative framework, and/or supranational bodies.

In addition to the previous classification of the variable component of remuneration, the variable component is also linked to the time horizon for payment (Dawid et al. 2017), which may be immediate (short-term remuneration) or deferred over time (medium/long-term remuneration).

Short Term Variable Remuneration

In order to reward individual performance that has led to improved performance in the administrative year, short-term incentives known as annual bonuses are used. Instead, through the incentives given in the long term, it is intended to reward the results obtained through a certain line of business or from a strategic area embodied by a subsidiary company, a division or a certain group of people.

Bonuses have long been the preferred tool to reduce agency costs: thinking of aligning the personal and management interests of managers (agents) with those of shareholders (main), shares were provided in the share capital of the company, in the belief that the agents would act with strategies closer to the interests of shareholders. Unfortunately, the results of this remuneration policy have often not been satisfactory: the interest in generating value in the long term has often been secondary to the increase in personal profit, leading to the development of more or less sophisticated methods of individual enrichment at the expense of the value of the company.

The disadvantages of this system are many and here are some examples (Ward & Sloane, 2000):

- If access to excessively high bonuses is limited to members of senior management, then those who play key roles in the management of business processes may feel a sense of unfairness strongly discouraging;
- In order to have a correct forecast of the income statement, it would be indispensable to have systems with limited variability. Bonuses can weigh heavily on labour costs, making them less predictable and making process management more difficult;
- These instruments must be constantly updated to reflect changes in the market or in company strategy, the achievement of strategic objectives and plans, the implementation of new remuneration practices or the penalization of poor performance.

On the other hand, bonuses also have positive consequences:

- help to solve the agency problem;
- disseminate the culture of results among the members of the organisation;
- aim to achieve virtuous, efficient and productive behaviour;
- they are related to the volume of revenues or of operating margins and can be reduced when the parameter decreases.

It can be deduced that incentives can also potentially affect productivity, market costs and revenues and the company's economic and financial performance.

The incentive plan is developed through a performance management system that defines objectives, monitors and records results. An effective performance system is essential for identifying the percentage of the profit to be allocated to bonuses, known as the "bonus pool", which may be allocated individually or collectively.

In selecting the performance measures, certain aspects such as the following are considered:

- consistency with the basic objectives of the business plan. In fact, depending on the company's priorities, it may be decided to adopt residual income measures such as EBITDA, market based indicators, such as an increase in market share, or cost based (operating efficiency parameters);
- the number and variety of measurements. Two types are used: quantitative and qualitative, which should serve to align remuneration with the risks assumed by the position held in the company. However, only the quantity is indicated;
- the methodological approach to detection, especially for measures of economic and financial results: these methods can be based on value-based measures, accounting measures, measures of the economic value of capital, and so on.

Various systems have been designed to translate business strategies into concrete objectives and tasks, in order to implement performance management systems.

These systems provide a guide for identifying the performances to be rewarded, but certainly do not give all the answers and for this reason may present a criticality.

The economic value of the incentive must be quantified in such a way as not to induce behaviour that is too risky, but also not excessively low, so as to demotivate employees.

It is necessary to identify homogeneous groups of the corporate population (top executives, line managers, technical structure and staff) as it is necessary to define challenging but realistic and common objectives for each role. In fact, the bonus is paid upon reaching a specific target called a "gate", for example a certain profit, rather than calculating the bonus proportionally through the method of multiples.

However, the budget that the company has at its disposal influences the disbursement of incentives, as these bonuses are distributed on the basis of performance objectives defined by the remuneration strategy. For example, it can be established that upon reaching 80% of the target, only 50% of the variable component is recognised, while if the aforementioned target is widely exceeded, a higher premium must be recognised than the established one.

Before the onset of the global financial crisis, short-term incentive schemes were used for internal equity and distribution purposes; these monetary prizes – though small in amount - were awarded to the majority of employees in order to promote social peace.

Medium/long-term variable remuneration

The orientation of the supervisory bodies at global level has been to promote the adoption of forms of long-term compensation to limit the damage caused by the maximization of financial results instigated by the forms of short and very short term incentives. As a result, the implementation of rewarding remuneration mechanisms over the long term has become widespread, especially for workers in strategic positions and for those with high management responsibilities. The variable component of medium/long-term remuneration has the function of fostering the loyalty of employees with particular experience and expertise in the specific sector in order to avoid the risk of them collaborating with any competitors. Among other things, the potential for increasing the motivation of the resource in a period consistent with the achievement of the strategic objectives of the plans should not be ignored. In this context, the short-term logic of managers' participation in the value created in enterprises as a whole is being overcome. This element is by its nature prospective, multi-period and risk adjusted. The objective of these incentives is to align the activities of managers with the interests of the company's stakeholders. Rolling plans which are updated at the end of each year to comply with the company's strategy and subsequently to bring remuneration into line with the company's objectives, are often used instead of closed plans. For example, the bonus is not awarded one-shot at the end of the three-year period, but periodically at the end of the administrative year.

An important role to reduce the short term approach is played by the claw back clauses, i.e. contractual mechanisms that provide for the possible repayment, even partial, of compensation already paid by companies to their management as a variable part of the compensation.

REMUNERATION STRATEGIES FOR LISTED AND UNLISTED COMPANIES

Methods adopted by listed companies

Usually while short-term bonuses are paid out in monetary form, bonuses with a longer (medium to long-term) time horizon are paid out in shares. The reason for this distinction lies in the fact that monetary incentives lend themselves to a logic of maximising certain balance sheet indicators regardless of the sustainability over time of the results with which these indicators are constructed. In order to take into account, the time factor and to induce the management to make more far-sighted choices, equity instruments were distributed, leaving the market to indirectly judge their actions by raising or depressing the value of share prices. The most commonly used instruments include equity based, equity linked-cash settled and non-equity based/cash instruments. This is not a form of remuneration reserved exclusively for executives, but it is often aimed at a broad base of employees, such as the employee stock option plan. Traditional "equity based" instruments are based on the allocation of shares and are subdivided into:

1. Provisions for future liabilities and charges may not be used to adjust the value of assets held for trading. The following situations may occur:

- Out of the money option (exercise price above the market price of the security);
- Option at the money (exercise price equal to the market price);
- Option in the money (exercise price below market price).

2. Performance stock options: these are similar to the previous ones but, in addition to the convenience of the strike price, there are also some performance conditions/situations;

3. Performance share or stock grant: the shares are guaranteed by obtaining certain results;

4. Restricted shares: they are linked to the vesting period (usually not less than three years), i.e. the securities cannot be sold before this maturity date. The FSB intervened in the most recent cases of violation in 2009.

The latter, i.e. equity linked-cash settled, consists of a cash payment on the basis of and forms part of share price movements:

- Phantom options or stock appreciation rights. Liquidity is received if the share price rises from its starting value. It is as if we were making the difference between the two prices: buying and selling;
- Performance unit, like performance shares but with virtual actions.

Finally, the third category or non-equity based/cash are divided into two groups:

- monetary plans (or long-term cash plans), is usually disbursed on a three-year basis when certain performance objectives are achieved;
- deferred bonus, consist of a deferment of part of the incentive over the medium/long term in order to better analyse the effects of the performance policy implemented by the manager. They are usually implemented over a period of three years;

Such deferrals may be voluntary or mandatory.

Methods adopted by unlisted companies

The management incentive process in unlisted companies - is very similar to that implemented in listed companies and usually these companies comply with the criteria used by listed companies but with a few years' delay. However, it is important to note that -unlisted companies, not having a reference market, cannot use instruments based on the shares' market value, and to define the economic value created by managers often they do an appraisal of the company when the shares (or the options) are granted and at the time of exercise of the rights (or every year) In some cases, the companies agree with managers some formulas used to measure the value creation, based on financial and non-financial indicators weighted.

For example, EBITDA, total turnover and or brand turnover increase, new products and so on.

THE SURVEY

In order to verify the level of implementation in a sample of Italian unlisted companies (most of them SME) of the remuneration policies described above, the management incentive systems and the related procedures adopted, a specific questionnaire was drawn up to gather information and sent to 80 unlisted companies, among which 38 replied. Some of them were available even for a meeting to explain more in deep their strategies and policies. The questionnaire was divided into two sections and is given below, along with synthetic results, for immediate reference.

In the Section 1 were collected General Information of the companies

Industrial Sector (Food and Beverage, 20%, Chemical-pharmaceutical, 0%, Rubber-Plastic, 4%, Metalworker, 52%, Textile-Clothing, 12%, Other, 12%), Figure 1

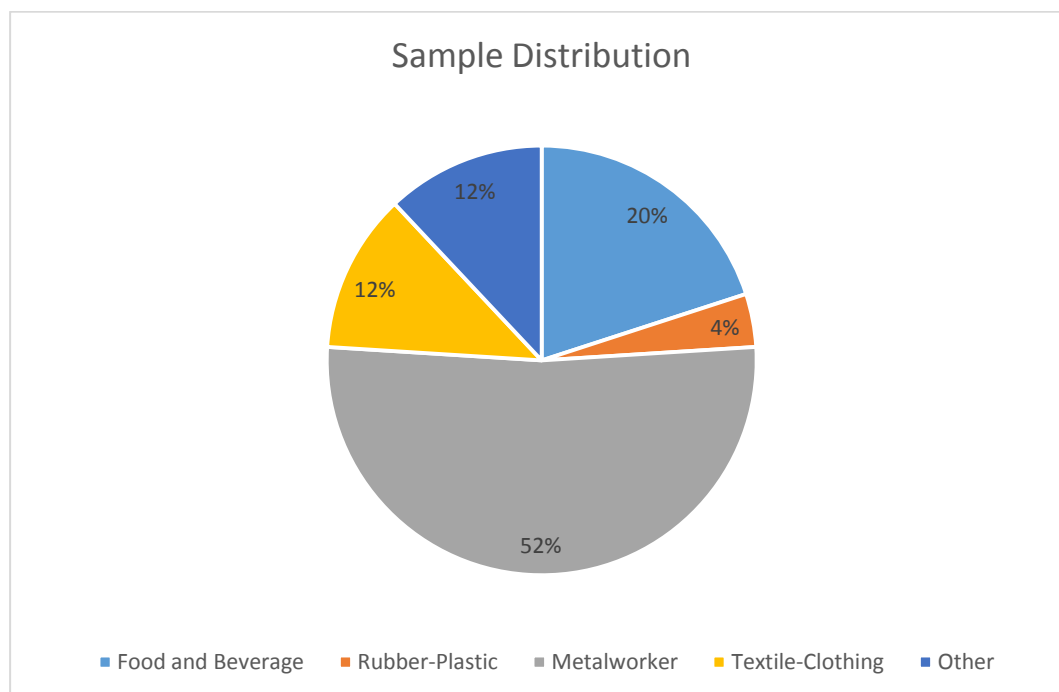


Figure 1. *Sample distribution for industrial sector*

Geographical areas of production (EMEA, 61%, Americas, 22%, APAC, 17%)

The companies were divided based on the number of employees (less than 250, between 250 and 500, more than 500).

Section 2, Remuneration strategy

A formalized remuneration policy, with variable remuneration to their managers, is applied by 68% of the answering companies while the 32% don't have a formalized remuneration strategy and policy.

We asked since when they formalized their remuneration strategy and policy.

The result are summarized in Table 1

Since / Employees	< 250	250 to 500	> 500
no	55%	0%	33%
< 5y	18%	13%	17%
5y to 10y	18%	49%	0%
>10y	9%	38%	50%

Table 1. *Distribution of remuneration policies in the sample*

It was also asked the reason why some of them don't apply a formalized incentive plan: most of the smaller ones were worried about the cost of implementing it and were not sure about the correlation between pay and performance. The bigger ones were mostly worried about the incentive to risk taking with a short period view.

About the average of incentives compared to fixed remuneration, we obtain these replies, (ref. Table 2).

INCENTIVES	<250	250 to 500	>500
Less than 5%	44%	23%	0%
Among 5% and 10%	22%	31%	29%
Among 10% and 15%	11%	23%	29%
Among 15% and 20%	11%	15%	29%
Slightly more than 20%	12%	0%	13%
More than 20%	0%	8%	0%

Table 2. *Distribution of average of incentives compared to fixed remuneration in the sample*

The smaller companies used for variable compensation (in order): prizes in cash or items, linked to individual goals (about 8%), cash incentives linked to "team goals" (about 4%), deferred bonus (about 4%), stock option (or stock grant), about 4%, other

The "medium" companies use (in order of diffusion): cash incentives linked to individual goals (about 13%), cash incentives linked to "team goals" (about 9%), prizes in items, (about 7%), benefits (about 6%), stock option and stock grant (about 4%), other.

The "biggest" companies use: more cash incentives linked to "team goals" (about 8%), cash incentives linked to individual goals (about 6%), prizes in kind (about 4%), welfare plan (about 4%), and long term cash plans (about 2%), other

A question was about the functional area and hierarchical role where the incentive policy was applied; the results are in Table 3.

BUSINESS AREA AND ROLE	Management Staff	Management Executive	Director
Administration, Finance and Control	9%	13%	10%
Marketing	8%	7%	6%
PR and Communication	5%	4%	6%
Production	9%	13%	16%
Quality	10%	9%	10%
Research and Development	9%	9%	6%
Human Resources	8%	10%	6%

Customer Service	9%	6%	6%
Safety Health and Environment	6%	4%	10%
Information Systems	7%	6%	7%
Supply Chain	9%	9%	6%
Sales	11%	10%	11%
	100%	100%	100%

Table 3. *Distribution of variable remuneration according to role and business function*

About the effectiveness of the incentive policy, 31% declared to be totally satisfied, 53%, satisfied and 16% unsatisfied.

CONCLUSIONS AND MANAGERIAL DISCUSSION

The incentives for managers in unlisted companies, including medium-sized ones, is a relevant issue because of the importance of aligning the interests of managers as much as possible with the creation of sustainable value. Many medium-sized family businesses are facing internal and external growth processes, internationalization, change of business model and should be able to increase the level of delegation and, at the same time, attract managers with high professionalism and distinctive experience, motivating and retaining them. A system of incentives based mainly on discretionary criteria can in many cases be ineffective or not motivating, thus significantly limiting the attractiveness and retention capacity. However, it should not be overlooked that for unlisted companies it is even more difficult than for listed ones to build an incentive system that could adequately balance the need for short-term performance incentives with those for the medium to long term, which should be reflected, in a significant part, in the price of shares if the financial market is efficient and properly informed. The non-listed companies have even a greater difficulty to identify performance measures that take into account the underlying risks - operational, financial and reputational - if they use accounting performance measures, the most used in private companies.

So many companies reduce the variable component and/or favouring monetary instruments mainly based on short-term financial objectives that are not adequately adjusted for risk, or instruments such as bonuses or benefits, that are not always adequately correlated to performance. The analysis carried out, although limited in number also due to the not always significant "awareness" of medium-sized companies about the analyzed issue, allows to highlight some ideas on which further research and insights could be set,

Incentive systems are becoming more widespread in medium-sized companies, and most of them are aware of the importance it will have more and more but most of the incentives are of a monetary nature, linked to short-term individual objectives, although those linked to team/working group objectives are becoming more widespread. Smaller companies still make significant use of bonuses in

kind and benefits, while deferred bonuses privileging medium/long-term results (with claw back clauses) and the use of equity instruments (stock options and stock grants) are still rare. The difficulty, also noted in the part of the "open answers" questionnaire, is that of being able to set up a remuneration policy that correctly balances the needs of risk-adjusted performance and that could have a correct orientation towards the sustainability of the company and its objectives (not only the financial ones).

Building a set of indicators that adequately takes into account the specificities of the reference sector, the characteristics of the company and the priority objectives of the company is essential in order to be able to try and set remuneration policies that will, in any case, have to take into account both top-down and peer-to-peer qualitative assessments. The lack of a market that can "evaluate" the company is certainly not an element to be underestimated, but if the levers of value are correctly identified, even smaller companies can develop incentive policies that, without having a too high cost, allow them to be more dynamic, attracting and able to motivate the highest professional figures (including those belonging to the owner's family), while reducing conflicts and agency risks and thus allowing a higher level of delegation, necessary in competitive and complex markets.

Further analysis to be carried out mainly through field research could also integrate questions on efficient methodologies for measuring the value creation and "anticipatory" indicators, as well as examine the correlation among growth rates, performance and/or internationalization and the dissemination of formalized incentive systems, possibly including also international comparisons.

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INTERNATIONAL DEVELOPMENT ASSISTANCE EFFECTS ON ECONOMIC GROWTH: EVIDENCE FROM FOUR SOUTH EUROPEAN COUNTRIES

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ABSTRACT

The purpose of this paper is to examine the impact of international development assistance on economic growth in the case of four Southeast European member states, Croatia, Estonia, Lithuania, Slovenia, that fall into two different innovation performance groups, during a maximum time period of 16 years (1995-2010), by following a behavioural equation of flows, not an accounting identity.

Foreign aid as additive to domestic savings is expected to cause an increase in economic growth and domestic savings. Surprisingly, our empirical results do not support this hypothesis. We have shown that both international net official development assistance and official aid received, as well as net bilateral aid flows from DAC donors, have no statistically significant effect on Gross Domestic Savings into two different innovation performance groups. In all four European member states, with different innovation performance, only per capita Gross Domestic Product is statistically significant. These results are consistent with the notion that foreign aid transfers can distort individual incentives, and hence hurt savings and growth, by encouraging rent-seeking as opposed to productive activities.

Keywords: Innovation Performance, Croatia, Estonia, Lithuania, Slovenia, foreign assistance, savings.

1. INTRODUCTION

The European Innovation Scoreboard provides a comparative analysis of innovation performance in EU countries, other European countries, and regional neighbours. It assesses relative strengths and weaknesses of national innovation systems and helps countries identify areas they need to address.

The new 2017 edition of the Scoreboard reveals that EU innovation performance continues to increase, especially due to improvements in human resources, the innovation-friendly environment, own-resource investments, and attractive research systems. Sweden remains the EU innovation

leader, followed by Denmark, Finland, the Netherlands, the UK, and Germany. Lithuania, Malta, the UK, the Netherlands, and Austria are the fastest growing innovators. In a global comparison, the EU is catching up with Canada and the US, but South Korea and Japan are pulling ahead. China shows the fastest progress among international competitors.

Based on their average performance scores as calculated by a composite indicator, the Summary Innovation Index, Member States fall into four different performance groups. Denmark, Finland, Germany, the Netherlands, Sweden, and the United Kingdom are *Innovation Leaders* with innovation performance well above that of the EU average. Austria, Belgium, France, Ireland, Luxembourg, and Slovenia are *Strong Innovators* with performance above or close to that of the EU average. The performance of Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Slovakia, and Spain is below that of the EU average. These countries are *Moderate Innovators*. Bulgaria and Romania are *Modest Innovators* with performance well below that of the EU average.

Innovation is important for the growth process of developing countries and it is important to look back, in past of European member states and examine the effect of foreign aid on the growth process of developing countries. Foreign aid is an important topic given its implications for poverty reduction in developing countries. Previous empirical studies on foreign aid and economic growth generate mixed results. The main area focus of all previous research is Africa, Asia, Latin America and the Caribbean. This is due to the fact that foreign assistance or aid is a significant source of income to developing countries, especially to countries in Africa, where on average it provides 12.5 per cent of gross domestic product and establishes by far the most important source of foreign capital (Pallage and Robe, 2001).

Since 1989, however, many former communist countries in South-East Europe have faced the collapse of their production system along with socio-economic problems such as poverty, hunger or even war. The past decade of transition and conflict has left the region with a legacy of inadequate growth and declining living standards. Since the end of the Kosovo conflict in 1999, however, there has been considerable improvement. Civil unrest has been overcome and a political balance has been found that has allowed a return to economic growth and closer regional cooperation.

South East Europe (including Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Kosovo, Romania and Serbia) is home to 55 million citizens.

In order to alleviate the region's problems, the international community released a significant amount of foreign aid. In addition, it attempted to help the reconstruction of South East Europe and to bring political stability and economic prosperity. Foreign aid has been provided by different donors,

including all EU Member States, as well as other countries, such as Canada, Japan, Russia, Switzerland and the United States of America. Much of this bilateral assistance has been provided in the form of grants. The EU is by far the single largest grant assistance donor to the countries of the Western Balkans. Depending on what concept of aid is used, assistance to the Balkan countries in 1990-1998 ranged from \$17 billion to \$25 billion or 2.2 to 3 per cent of recipients' Gross Domestic Product (Kekic 2008). Since 1991, the EU has provided more than €6 billion to the region through its various aid programmes. In addition, high levels of assistance have also been provided by multilateral donors and International Financial Institutions (e.g., the European Bank for Reconstruction and Development, the European Investment Bank and the World Bank), mainly in the form of preferential loans.

As important as the provision of financing to the region is the need to coordinate this assistance. Donor coordination also helps to avoid misconceptions, unrealistic expectations, poor information or data, all of which can lead to undermining and damaging reconstruction efforts. For this reason, the European Commission and the World Bank play a key role as coordinators of international assistance for the reconstruction and development of South East Europe (SEE). The EU Commissioner for Economic and Monetary Affairs and the President of the World Bank co-chair a High Level Steering Group (HLSG), which comprises G8 finance ministers and heads of major International Financial Institutions (IFIs). The HLSG aims to ensure the strategic direction of the process of economic reconstruction, stabilisation, reform and development in the region, including social and institutional dimensions, both at country and at regional level. Moreover, the HLSG oversees resource implications for the international community and the donor mobilization process, assists in co-ordination, oversees the appropriate conditions of support and ensures consistency of the criteria by which donor funding is committed.

The countries of the region are expected to develop and implement their reform programs based on national strategies that also foster regional cooperation. The objective here is not to recreate, for example, the former Yugoslavia, but to develop regional perspectives on, *inter alia*, trade, energy, the environment, and water resource management, which can offer political benefits and large welfare increases for all countries of the region. Moreover, a regional approach allows for adequate prioritization of regional infrastructure investments in SEE. The regional approach and the need to enhance regional cooperation is also a cornerstone of the Stabilization and Association Process, the process for the integration of the Western Balkan countries into EU structures.

The Development Assistance Committee (DAC) is the principal body through which the Organization for Economic Cooperation and Development (OECD) deals with issues related to co-operation with developing countries. Donors have been highly responsive to the needs of the region, and their support is tailored to needs of each recipient country. For example, donor support for

reconstruction and reform in Bosnia and Herzegovina peaked in the immediate years following the signing of the Dayton Agreement in 1995. In Albania and the Former Yugoslav Republic of Macedonia, on the other hand, the Kosovo crisis caused immediate and dramatic budget support needs and humanitarian needs, which the donors were generally able to provide. Kosovo, another example, had substantial needs in 1999 and 2000 but already, as budget systems have been put into place and reconstruction needs been filled, demand and supply have been on a downward trend.

Also, the World Bank, as a development institution, supports two broad goals in South East Europe: (i) poverty reduction and (ii) economic and social development, the latter in support of the efforts of the Western Balkan countries to join the European Union. The central vehicle for supporting the national reform program of each country is the so-called Country Assistance Strategy (CAS). Based on an assessment of the country's priorities, past portfolio performance and creditworthiness, the CAS sets strategic priorities and determines the level and composition of financial and technical assistance that the World Bank seeks to provide to the country. The framework for poverty reduction and economic growth is supplied by the countries' own Poverty Reduction Strategy Papers, developed by the government through a participatory consultation procedure.

In general, donors recognize that economic development, social inclusion and regional stability in SEE hinge on the strengthening of institutions, governance and a lowering in the level of corruption. International assistance was largely successful in promoting peace, strengthening state institutions and preventing a return to violent conflict (Huliaras 2011). The purpose of this paper is to examine the impact of international development assistance on economic growth in the case of four Southeast European member states, Croatia, Estonia, Lithuania, Slovenia, that fall into two different innovation performance groups, during a maximum time period of 16 years (1995-2010).

Croatia is a Moderate Innovator. Over time, 2017 performance has declined by 1.4% relative to that of the EU in 2010. Relative strengths of the innovation system are in firm investments, human resources and employment impacts. Relative weaknesses are in intellectual assets, attractive research systems, and innovators.

Estonia is a Moderate Innovator. Over time, 2017 performance has declined by 3.6% relative to that of the EU in 2010. Relative strengths of the innovation system are in finance and support, human resources and innovation-friendly environment. Relative weaknesses are in innovators, linkages, and sales impacts.

Lithuania is a Moderate Innovator. Over time, 2017 performance has increased by 21.0% relative to that of the EU in 2010. Relative strengths of the innovation system are in innovation-friendly environment, human resources and linkages. Relative weaknesses are in sales impacts,

attractive research systems and intellectual assets.

Slovenia is a Strong Innovator. Over time, performance has declined by 0.2% relative to that of the EU in 2010. Relative strengths of the innovation system are in human resources, firm investments, and Innovation-friendly environment. Relative weaknesses are in finance and support, sales impacts and innovators.

Foreign aid as additive to domestic savings is expected to cause an increase in economic growth and domestic savings. The next section of the paper provides a theoretical and empirical discussion, while section 3 describes the data and the methodology. Section 4 presents the results and finally, section 5 provides some concluding remarks.

2. THEORETICAL AND EMPIRICAL DISCUSSION

The relationship between foreign aid and economic growth has been a favorite topic of economists and policy makers for many decades. The standard model for justifying the aid-growth relationship was the “two gap” model developed by Chenery and Strout (1996), who built on earlier work of other development economists, such as Lewis (1954) and Rostow (1960). According to the “two gap” model, the first gap is between the amount of investment necessary to attain a certain rate of growth and the available domestic saving, while the second gap is between import requirements for a given level of production and foreign exchange earnings.. According to Chenery and Strout (1966), a positive effect of foreign aid on domestic savings exists even if some of the inflows are used for consumption. The equation $S = I - F$, where S , I and F are domestic savings, gross investment, and net total foreign inflows respectively, is a behavioural equation of flows, not an accounting identity as presented by Nushiwat (2007).

Departing from the above view, Bauer regards foreign aid as a failure for recipient countries, defining foreign aid as “a transfer of resources from the taxpayer of a donor country to the government of a recipient country” (Bauer 1975: 396). Thus, foreign aid destroys economic incentives, leads to misallocation of scarce resources and rent-seeking, and finally reduces recipient countries’ economic growth (see also Berrittella and Zhang, 2012).

On the empirical ground, foreign aid donors and recipient governments have recognized the need to establish a possible link between foreign aid and economic growth and development. But the empirical literature is controversial. Thus, one strand of literature recognizes the positive effects of aid on growth, another supports the view that aid is effective in some countries with certain characteristics, a third one does not find any causal relationship and a final one finds a negative relationship. .

Supporters of foreign aid espouse the view that on average or in most cases, aid has been an

effective developmental tool (positive aid-growth correlation). The main contribution was developed by Chenery and Strout (1966), who argued that if investment in a country is below the desired level, foreign aid inflows and foreign capital inflows are needed so that the country can grow more rapidly than its internal resources would otherwise allow. Foreign aid therefore moves a country's economy upwards.

Mubarak (2008) evaluated the effectiveness of external development assistance provided to Pakistan. The main effect of aid was to eradicate extreme poverty and promote gender equality, investing in health and education and achieving environmental sustainability. Hatemi-J and Irandoust (2005) investigated the long-run relationship between foreign aid and real economic growth for a panel of developing countries (Botswana, Ethiopia, India, Kenya, Sri-Lanka and Tanzania) over the period 1974-1996. The donor country was Sweden. The estimated long-run elasticities indicated that the Swedish foreign aid had a positive and significant impact on economic activity for all countries in the sample, and a policy implication was that foreign capital flows can have a favourable effect on real income by supplementing domestic savings. Murty, Ukpolo and Mbaku (1994) found that per capita real gross domestic product, the saving rate and aid are cointegrated, and that aid had positive long run effects in Cameroon during 1970-1990. Levy (1988) found aid to be positively and significantly correlated with investment and economic growth in Africa. Using an Autoregressive Distributed Lag (ARDL) model, Gounder (2001) found that aid has a positive and significant effect on growth in Fiji. Papanek (1972), Dowling and Hiemenz (1982), Gupta and Islam (1983), Hansen and Tarp (2000), Gomanee, et al. (2005), Dalgaard et al. (2004), and Karras (2006), also find evidence for positive impact of foreign aid on growth.

There are also several countries in which successful programs of economic development have originated from postwar recovery programs for humanitarian needs – notably Greece, Taiwan, Israel and the Philippines (Adelman and Chenery, 1966).

A new popular study providing evidence that aid has a positive effect on growth was developed by Burnside and Dollar (1997). This new evidence influenced many other studies. Burnside and Dollar (1997), found a positive influence of aid on economic development, but only in developing countries with good fiscal, monetary and trade policies. A country has a good policy environment if there is low inflation, a low budget deficit and no protectionism, meaning trade is relatively open. This study gained favour from aid regime supporters, because it explains why aid has supported growth in several countries while at the same time not influencing growth in others. Subsequently Burnside and Dollar (1997), World Bank (1998), Burnside and Dollar (2000, 2004), Collier and Dollar (2001, 2002), Svensson (1999), Collier and Dehn (2001) and Collier and Hoeffler (2002) found similar results.

The robustness of Burnside and Dollar's (1997) results was questioned by Easterly (2003) and Easterly et al. (2003). They use the same methods and data definitions as Burnside and Dollar (1997), but they employ additional data or a different sample period, thereby showing that nearly all results of Burnside and Dollar (1997) depend on the "right" choice of data included in the sample. According to Easterly (2003), the widely publicized finding that "aid promotes growth in a good policy environment" is not robust to the inclusion of new data or alternative definitions of "aid," "policy" or "growth." He argues that the idea that "aid buys growth" is on shaky ground theoretically and empirically. Mosley (1980), Mosley, et al. (1987), Boone (1996), and Jensen and Paldam (2003) find evidence to suggest that aid has no impact on growth. A recent study by Doucouliagos and Paldam (2009), using meta-analysis covering 68 papers containing a total of 543 direct estimates, found that the effect of aid on growth estimates scatter considerably and add up to a small positive, but insignificant, effect on growth.

Roodman (2003) showed that the results obtained by some studies can be fragile, and for this reason he qualifies the results he reports. Ouattara and Strobl (2004) conclude that project aid worked but program aid did not, and Ram (2004) concludes that, while the overall impact of aid is positive, multilateral unlike bilateral aid does not work. Inanga and Mandah (2008) examined the role of the two foreign aid financing agencies in promoting Zambia's economic growth and concluded that although it may be difficult to separate the effects of foreign aid finance from those of other growth-inducing factors, efficient and effective utilization of foreign aid finance can contribute to growth in a stable macroeconomic environment.

Dalgaard et al. (2004) found that the size and direction of the impact of foreign aid may depend on policies, "deep" structural characteristics and the size of the inflow. Holder (2004) argued that the relationship between foreign aid and growth turns out to be an inverted-U shape under reasonable policy assumption, which is an Aid Laffer Curve. The positive relationship between foreign aid and growth is located in the upward slope, while the negative relationship is located in the downward slope of the Aid Laffer Curve.

Ekanayake and Chatrna (2010) analyzed the effects of foreign aid on the economic growth of a group of 85 developing countries, spanning Asia, Africa, Latin America and the Caribbean, for the period 1980-2007. Findings indicated that foreign aid has mixed effects on economic growth in developing countries. Similarly, Ang (2010) found that while foreign aid exerts a direct negative influence on output expansion, its indirect effect via financial liberalization is positive. Bivariate Granger causality tests by Dhakal et al (1996) involving four Asian countries (India, Nepal, Pakistan and Thailand) and four African countries (Botswana, Kenya, Malawi and Tanzania), using data from 1960 to 1990, failed to find any causal relationship between foreign aid and economic growth in any of

these countries. All the studies cited above were concerned specifically with the impact of aid on per capita national income growth, the exception being Lloyd et al. (2001), which looked at private consumption growth.

There are also other studies examining various issues concerning foreign aid. Djankov et al. (2006) showed an unexpected outcome of foreign aid: it reduces the level of democracy of the recipient countries. Making aid effective is difficult, and loans may help to induce some discipline and a more effective use of funds, since they have to be returned. In addition, other sources of foreign funds, like remittances and private assistance, have proved to be quite effective in fostering growth and investment. For example, in Albania, remittances are estimated to be about 9-10 percent of GDP, representing a quite important inflow to both households and to the entire economy (Liargovas and Repousis 2011). Increasing the responsibility of recipient countries, reducing the cost of remittances to developing countries and improving the coordination of donors seem to be reasonable goals for improving the effectiveness of foreign aid.

Critics of foreign aid take as their starting point the fact that after more than forty years of development assistance, people in the poorest African countries are still living in poverty. Their real per capita income since 1965 has either declined or remained stagnant. Rajan et al. (2005) found no robust positive relationship between aid and growth by using cross-country panel data. Werker et al. (2008) argue that foreign aid affects most components of GDP, but it has no statistically identifiable impact on prices or economic growth. Mallik (2008) examined the effectiveness of foreign aid for economic growth in the six poorest and highly aid dependent African countries (Central African Republic, Malawi, Mali, Niger, Sierra Leone and Togo), using co-integration analysis, and found that a long-run relationship exists between per-capita real GDP, aid as a percentage of GDP, investment as a percentage of GDP and openness. However, the long run effect of aid on growth was found to be negative for most of these countries.

Brautigam and Knack (2004) found evidence that higher aid levels are associated with larger declines in the quality of governance and lower tax effort in Africa. Other studies, such as Friedman (1958) and Bauer (1972), called for an end to aid, arguing that it is not a necessary requirement for the economic growth of a country. Also, Economides et al. (2008), based on Drazen (2000), showed that foreign aid transfers can distort individual incentives, and hence hurt growth, by encouraging rent-seeking and corruption in recipient countries, as opposed to productive activities. They used a model of a growing small open economy for a cross-section of 75 aid-recipient countries. In their model, they refer to rent-seeking¹ as “the socially costly pursuit of winning a contestable prize,” where foreign aid

¹ The main theoretical explanations as regards rent-seeking behavior are found in Tullock (1980), Tullock (1980), Krueger (1974), Baumol (1990) and Murphy et al. (1991). Bhagwati (1982) provides a synthesis of the welfare analysis of rent-seeking activities. More recently, Conlon and Pecorino (2004) study policy reforms in a model with rent seeking.

transfers increase the size of the prize that interest groups fight over (see Svensson 2000). According to them, increases in aid are associated with worse institutions (see, e.g., Alesina and Weder 2002), although this view has not escaped criticism (see, e.g., Tavares 2003). The interest in the association between institutions and aid is not surprising given the robust evidence that institutions and economic performance (like growth) are positively associated (see, e.g., Mauro 1995; Knack and Keefer 1995; 1997).

According to Burhop (2005), all these contributions neglect the question of causality: is foreign assistance really a causal force in economic development, or is there only a correlation between foreign assistance and economic development? Foreign assistance could be a causal force if it eliminates barriers for economic growth. Burhop (2005) investigated the causal relationship between foreign aid, income per capita and investment for 45 developing countries. Wald tests on VAR coefficients cannot reject the hypothesis of there being no causal relationship between aid and economic performance.

Finally, a common characteristic of all of the above studies is that the country coverage is either Africa, Asia or the Caribbean.

3. DATA AND METHODOLOGY

According to Chenery and Strout (1966), foreign aid as additive to domestic savings would cause an increase in economic growth and domestic savings. Examining whether causality runs from foreign aid to domestic savings of the recipient counties, Griffin and Enos (1970), Griffin (1970) and Weisskopf (1972) concluded that the effect of aid on savings is negative, because only a part of foreign aid is used for investment and the rest is used for consumption. Foreign aid generally does not cause an outflow of funds from the recipient country.

Based on Chenery and Strout (1966), we test the following equation for each one of the four countries in our sample:

$$S = a_0 + b_0f + c_0y \quad (1)$$

where,

S = Gross Domestic Savings divided by Gross Domestic Product,

f = total international net official development assistance and official aid received (current US\$) or total net bilateral aid flows from Development Assistance Committee (DAC) donors (current US\$)

and

y = per capita Gross Domestic Product.

By using F-distribution, our hypothesis is:

H₀: b₀=c₀=0 which means that neither of the two explanatory variables is significant for gross domestic

savings, R^2 insignificant, and

H1: $b_0, c_0 \neq 0$ which means that at least one of the two explanatory variables is different from zero, R^2 significant.

We are examining four countries in SEE: Croatia, Estonia, Lithuania, Slovenia Data are collected from World Bank national accounts data and OECD National Accounts data files.

GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.

Gross domestic savings are calculated as GDP less final consumption expenditure (total consumption).

Net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. It includes loans with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent). Net official aid refers to aid flows (net of repayments) from official donors to countries and territories in part II of the DAC list of recipients: more advanced countries of Central and Eastern Europe, the countries of the former Soviet Union, and certain advanced developing countries and territories. Official aid is provided under terms and conditions similar to those for ODA. Part II of the DAC List was abolished in 2005. The collection of data on official aid and other resource flows to Part II countries ended with 2004 data. Data are in current U.S. dollars.

Net bilateral aid flows from DAC donors are the net disbursements of official development assistance (ODA) or official aid from the members of the Development Assistance Committee (DAC). Net disbursements are gross disbursements of grants and loans minus repayments of principal on earlier loans. ODA consists of loans made on concessional terms (with a grant element of at least 25 percent, calculated at a rate of discount of 10 percent) and grants made to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. Official aid refers to aid flows from official donors to countries and territories in part II of the DAC list of recipients: more advanced countries of Central and Eastern Europe, the countries of the former Soviet Union, and certain advanced developing countries and territories. Official aid is provided under terms and conditions similar to those for ODA. Part II of the DAC List was abolished in 2005. The collection

of data on official aid and other resource flows to Part II countries ended with 2004 data. DAC members are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Republic of Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States, and European Union Institutions. Regional aggregates include data for economies not specified elsewhere. World and income group totals include aid not allocated by country or region. Data are in current U.S. dollars.

4. EMPIRICAL RESULTS

We tested equation (1) for Croatia, Estonia, Lithuania, Slovenia. Our results appear in Table 1.

Table 1. Regression Equations for four South East European member states

	NODA	Bilateral
Croatia	Sc = 7.8804 + 855.5441fc + 0.0009yc (3.09) (1.48) (5.26)*	Sc = 8.4729 + 777.2528fc + 0.0009yc (3.34) (1.21) (5.03)*
Estonia	SE = 22.5807 - 199.6714fE + 0.0008yE (4.36) (-0.64) (1.86)	SB = 22.5355 - 211.7047fE + 0.0008yE (4.33) (-0.63) (1.95)
Lithuania	SL=9.8734 + 16.0419fL + 0.0009yL (6.90) (0.21) (3.66)*	SL=9.9237 + 13.0877fL + 0.0009yL (7.22) (0.17) (3.65)*
Slovenia	SS = 19.3248 + 146.0429fS + 0.0004yS (7.91) (0.57) (2.69)*	SS = 19.2780 + 159.8428fS + 0.0004yS (8.08) (0.62) (2.74)*

*Denotes statistical significance at the 5per cent level.

Croatia

Our regression equation estimates Sc (gross domestic savings divided by Gross Domestic Product in Croatia), fc (total international net official development assistance and official aid received in Croatia) and yc (per capita GDP in Croatia) for a 16-year period, 1995-2010 (values in parenthesis are the coefficients t statistics). The results show that total international net official development assistance and official aid received has a positive correlation with gross domestic savings and it is not statistically significant at the 5per cent confidence level. Per capita Gross Domestic Product has a positive correlation with gross domestic savings and is statistically significant at the 5per cent confidence level. As a whole, using F-distribution, results show that one explanatory variable (total international net official development assistance and official aid received) is significant in its effect on gross domestic savings divided by Gross Domestic Product (H_1 hypothesis is accepted). Also, our equation explains 82.85 per cent of the variation in gross domestic savings, in statistical terms.

In addition to the above, we tested the effect of total net bilateral aid flows from DAC donors using data for the same (16-year) period. Major net bilateral flows from DAC donors were from

United States of America and France. Our derived statistical results are exactly the same as the ones we obtained by using NODA.

Estonia

Our regression equation estimates S_E (gross domestic savings divided by Gross Domestic Product in Estonia), f_E (total international net official development assistance and official aid received in Estonia) and y_E (per capita GDP in Estonia) for a 10-year period, 1995-2004 (values in parenthesis are the coefficients t statistics). The results show that total international net official development assistance and official aid received has a negative correlation with gross domestic savings, but this is not statistically significant at the 5 per cent confidence level. Per capita Gross Domestic Product has a positive correlation on gross domestic savings, but is not statistically significant at the 5 per cent confidence level. As a whole, using F-distribution, results show that neither explanatory variable is significant on gross domestic savings divided by Gross Domestic Product (H_0 hypothesis is accepted). Also, our equation explains 70.08 per cent of the variation in gross domestic savings, in statistical terms.

In addition to the above, we tested the effect of total net bilateral aid flows from DAC donors (variable f_E) using data for the same (10-year) period. Major net bilateral flows from DAC donors were from United States of America and Sweden. Our derived results show again that neither explanatory variable is statistically significant. Also, our equation explains 69.99 per cent of the variation in gross domestic savings, in statistical terms.

Lithuania

Our regression equation estimates S_L (gross domestic savings divided by Gross Domestic Product in Lithuania), f_L (total international net official development assistance and official aid received in Lithuania) and y_L (per capita GDP in Lithuania) for a 10-year period, 1995-2004 (values in parenthesis are the coefficients t statistics). The results show that both explanatory variables are positively correlated with gross domestic savings, but only per capita GDP in Lithuania is statistically significant at the 5 per cent confidence level.

As a whole, using F-distribution, our equation explains 81.01 per cent of the variation in gross domestic savings, in statistical terms.

In addition to the above, we tested the effect of total net bilateral aid flows from DAC donors (variable f_L) using data for a 10-year period, 1995-2004. Major net bilateral flows from DAC donors were from Sweden, Japan, France and Finland. Our derived results for total net bilateral aid flows from DAC donors show that per capita GDP have a significantly positive effect on gross domestic savings divided by Gross Domestic Product. It explains 80.97 per cent of the variation in gross domestic savings, in statistical terms.

Slovenia

Our regression equation estimates S_s (gross domestic savings divided by Gross Domestic Product in Slovenia), fs (total international net official development assistance and official aid received in Slovenia) and y_s (per capita GDP in Slovenia) for a 10-year period, 1995-2004 (values in parenthesis are the coefficients t statistics). The results show that total international net official development assistance and official aid received are positively correlated with gross domestic savings and are not statistically significant at the 5 per cent confidence level. Per capita Gross Domestic Product has also a positive effect on gross domestic savings but is statistically significant at the 5 per cent confidence level. As a whole, using F-distribution, our results show that no explanatory variable is significant (H_1 hypothesis is accepted) and our equation explains 72.85 per cent of the variation in gross domestic savings, in statistical terms.

In addition to the above, we test the effect of total net bilateral aid flows from DAC donors (variable fs) using data for the same 14-year period. Major net bilateral flows from DAC donors were from United States of America and Sweden. Our derived results for total net bilateral aid flows from DAC donors are exactly the same as the ones we obtained by using NODA. It explains 73.13 per cent of the variation in gross domestic savings, in statistical terms.

5. CONCLUDING REMARKS

The purpose of this paper is to examine the impact of international development assistance on economic growth in the case of four Southeast European member states, Croatia, Estonia, Lithuania, Slovenia, that fall into two different innovation performance groups, during a maximum time period of 16 years (1995-2010), by following a behavioural equation of flows, not an accounting identity.

According to the gap model developed by Chenery and Strout (1966), foreign aid positively affects domestic savings. Foreign aid as additive to domestic savings is expected to cause an increase in economic growth and domestic savings.

Surprisingly, our empirical results do not support this hypothesis. We have shown that both international net official development assistance and official aid received, as well as net bilateral aid flows from DAC donors, have no statistically significant effect on Gross Domestic Savings into two different innovation performance groups. In all four European member states only per capita Gross Domestic Product is statistically significant at the 5 per cent confidence level.

Slovenia, a Strong Innovator, net official development assistance and official aid received and total net bilateral aid flows from DAC donors are positively correlated with gross domestic savings and are not statistically significant at the 5 per cent confidence level. Only per capita Gross Domestic Product is statistically significant at the 5 per cent confidence level and has also a positive effect on

gross domestic savings. But as a whole, using F-distribution, no explanatory variable is significant.

Croatia and Lithuania, two Moderate Innovator European member states, only Per capita Gross Domestic Product has a positive correlation with gross domestic savings and is statistically significant at the 5per cent confidence level.

Our results are not surprising. They are in line with similar results found by Rajan et al. (2005), Werker et al. (2008) and Mallik (2008) with different data sets and variable specifications. Our results are also consistent with Bauer (1975), who regards foreign aid as a failure for recipient countries because it destroys economic incentives and leads to misallocation of scarce resources and rent-seeking, and finally reduces recipient countries' economic growth (see also Berrittella, and Zhang 2012). Brautigam and Knack (2004) also found evidence that higher aid levels are associated with larger declines in the quality of governance and lower tax effort in the case of Africa. Finally, Economides et al. (2008), based on Drazen (2000), showed that foreign aid transfers can distort individual incentives, and hence hurt growth, by encouraging rent-seeking and corruption in recipient countries, as opposed to productive activities.

Since 1990, the international community has released a significant amount of foreign aid to South East Europe, totaling 2.2 to 3 per cent of recipients' Gross Domestic Product. The aim is to help the reconstruction of South East Europe and bring political stability and economic prosperity. Our results suggest that if aid is to be effective (in the future), both the international community and the recipient countries should reconsider the appropriate conditions of support, placing more emphasis on the consistency of criteria on which donor funding is committed and on institutional and social development in recipient countries, so as to discourage rent-seeking behaviour and improve the quality of governance.

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THE MEDIATING ROLE IN THE CUSTOMER SATISFACTION- LOYALTY RELATIONSHIP ON THE RETAIL INDUSTRY

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ABSTRACT

The relationship between customer satisfaction and loyalty has been subject to several studies in recent years. Using both theoretical and, mostly, empirical methodologies, the literature has captured a direct bond linking satisfaction to customers' loyalty, whose mediating role presents enough merits to be examined as well. Accordingly, this paper has the purpose to assess the mediating factors of the satisfaction and customer's loyalty in the retail traditional industry, with a particular emphasis on the following mediating relationships: quality service, brand image and perceived value.

This paper adds to the growing literature focused on the retail industry, being aware that such condition is uttermost important for the traditional retail in Portugal, as research and literature is still lacking, particularly focusing on studies at the regional level. This paper therefore contributes to mitigate such gap, by gathering evidence from traditional retail stores of the Centre of the Portugal, offering a discussion that makes major contributions that are supportive of practitioners and retail management in their quest for customer satisfaction and loyalty, and subsequent reward in terms of the sustainability and profitability of traditional retail businesses.

As main findings of this paper, one can highlight the suggestion that service quality directly influences the corporate image, perceived value and customer satisfaction and, concurrently, those influence back the behavioural purchase intentions. The positive relationship between quality of service and corporate image suggests that customers who received a high quality of service while consuming services would create a favourable image of the traditional retail store; similarly as the positive relationship between the service quality and the perceived value, which demonstrates that the high quality of service received by customers contributes to increase their perception about the value received by their purchases.

Keywords: Retailing, Traditional Retail, Service Quality, SERVQUAL, SERVPERF, Customer Satisfaction, Corporate Image, Perceived Value, Customer Loyalty, Portugal.

INTRODUCTION

For a long time that the issues of the customer's satisfaction and loyalty have been considered key factors for achieving entrepreneurial success. Unsurprisingly, the relationship between customer satisfaction and loyalty has been subject to several studies in recent years. Using both theoretical and, mostly, empirical methodologies, the literature has captured a direct bond linking satisfaction to customers' loyalty, whose mediating role presents enough merits to be examined as well. Accordingly, this paper has the purpose to assess the mediating factors of the satisfaction and customer's loyalty in the retail traditional industry, with a particular emphasis on the following mediating relationships: quality service, brand image and perceived value.

There is some literature focused on the examination of mediating roles and relationships. For example, Abd-El-Salam et al. (2013) theorised and tested whether customer satisfaction mediates the relationship between overall service quality and customer loyalty; while Chen (2012) devoted an entire section of the research paper to the analysis of this topic.

This paper attempts adding to the growing literature focused on the retail industry, being aware that such condition is uttermost important for the traditional retail in Portugal, as research and literature is still lacking, particularly while focusing on studies at the regional level. Following an early research from Veloso et al. (2018), this research therefore tries contributing to mitigate such gap, by gathering evidence from traditional retail stores of the Centre region of Portugal, offering a discussion that makes major contributions that are supportive of practitioners and retail management in their quest for customer satisfaction and loyalty, and subsequent reward in terms of the sustainability and profitability of traditional retail businesses.

More specifically, the research to be presented in this paper tries to examine the possible service quality influences on the corporate image, perceived value and customer satisfaction and, concurrently, those influences back to the customers' behavioural intentions. A positive relationship between quality of service and corporate image is theorized, suggesting the possibility that a customer, who received a higher quality of service, while consuming services, would create a more favourable image of the traditional retail store. Likewise as the positive relationship between the service quality and the perceived value. That may suggest that a higher quality of service received by customers may contribute to increase their perception of the value being received while buying.

Concurrently, the relationship between customer satisfaction and perceived value is theorised to be existent, as well as a relationship between corporate image and customer satisfaction. Corporate image, perceived value and customer satisfaction are also regarded as possibly influencing customer loyalty, since satisfied customers tend to generate favourable behavioural intentions to return. Furthermore, they are likely to make recommendations, as long as they feel they are experiencing a high level of

service quality, which, ultimately, results in greater perceived value and a more favourable corporate image.

Indeed, customers who return or revisit the traditional retail stores can help retail management to achieve a good reputation through a positive word-of-mouth. Additionally, retail management should be aware and assess the customer-relevant sub-dimensions to improve traditional trade' competitiveness. This information may be used to enable management to accurately measure customers' perceptions of their overall experiences in the traditional trade. Furthermore, the traditional retail stores should continue to emphasize on quality service and on making an effort to offer more personalized experiences for their customers. Great service has the potential to considerably develop perceived utility for customers (Disfani et al., 2017). Therefore, the managers and owners of the traditional retail stores should realise that service quality in the retail industry definitely influences customers' future favourable behavioural intentions through satisfaction, perceived value and corporate image.

The structure of this paper is as follows: having made a brief introduction, some further theoretical background is developed, laying the foundations of the research model, composed by a set of research hypotheses that compose the main model. Afterwards comes a data collection and analysis section, followed by the examination of the results obtained and subsequent findings, ending, finally, with the discussion and conclusions

THE CUSTOMER SATISFACTION-LOYALTY RELATIONSHIP

Service Quality

Early studies on service quality defined it as a measure to which a service provides customer needs, and implicates a comparison of customer expectations with their perceptions of actual service performance (Parasuraman, et al., 1985; Parasuraman, et al., 1988). Some studies described the perceived service quality as an overall judgment about the level of a service provider's performance. Service quality has assumed a major role both in public and private institutions, as an indispensable requirement to customer satisfaction. Lang (2011) finds the quality service as an important determinant of customer satisfaction and word-of-mouth communication. Regarding service quality dimensions, in according to Parasuraman et al. (1985, 1988) there are five dimensions of quality service: tangibility (physical facilities, equipment, and appearance of personnel); reliability (ability to perform the promised service dependably and accurately); responsiveness (willingness to help customers and provide prompt service); assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence); and empathy (caring and individualized attention the firm provides to its customers). These authors, who represent the American school, have designed an instrument for

measuring quality of service, called SERVQUAL. Thereby, the SERVQUAL constitute a quality system that will potentially improve functional quality and service performance (Meesala and Paul, 2018). SERVQUAL model has been criticized and discussed extensively. For instance, Cronin and Taylor (1992) observed that the validity of the use of expectations in the SERVQUAL model was called into question when consumers had no well- formed expectations and developed the SERVPERF scale which consists of the same 22 "items" of SERVQUAL, although centred only in measuring consumer perceptions regarding the quality of service.

Despite the diversity of studies in many fields, in this study, SERVPERF will be applied to the traditional trade in the Centre of Portugal in a similar manner as that of other studies realized at an international level, in the area of the trade industry (Abd-El-Salam, Shawky and El-Nahas, 2013; Disfani et al., 2017; Martinelli and Balboni, 2012; Tang et al., 2015; Yu and Ramanathan, 2012; Yuen and Chan, 2010). Generally, if service companies take actions that improve these quality dimensions, they will earn the benefits of customer loyalty (Bansal & Taylor, 1999; Zeithaml, Berry and Parasuraman, 1996). Lang (2011) considers the quality service as an important determinant of customer satisfaction and word-of-mouth communication. According to Nadiri and Hussain (2005) service quality increases customer satisfaction, stimulates intention to return, and inspires recommendations. Hua, Kandampully and Juwaheer (2009) found out that those customers who received high service quality during service delivery would form a favourable image of the company as well as for customers, received higher level of service quality and perceived superior value has strong impacts on customer satisfaction. In line with this studies, and based on SERVQUAL and SERVPERF, the following hypotheses are proposed in the present study:

H₁: The perceived service quality by the customers has a positive influence on their satisfaction.

H₂: The perceived service quality by the customers has a positive influence on corporate image.

H₃: The Perceived service quality has positive relationship with perceived value.

Corporate image

Several researchers of the area of marketing have widely studied the concept of brand image (Abd-El-Salam et al., 2013; Kim and Kim, 2005; Sahin and Baloglu, 2011; Yu and Ramanathan, 2012). For Kim and Kim (2005) a brand symbolizes the essence of the customers' perceptions of the organizations. Corporate image is defined as the "general impression" left in the customers' mind as a result of accumulative impressions or feelings, attitudes, ideas and experiences with the firm, saved in memory, transformed into a positive/negative sense, retrieved to rebuilding image and recalled when the name of the firm is heard or brought to ones' mind. According to Sahin and Baloglu (2011) corporate image is defined as the perception of customers about a brand or a product labelled with

that brand. Different authors consider brand image as an important component of strong brands and a determinant in the obtainment of competitive advantages.

An overall assumption is that a promising corporate image will have a positive impact on consumers' behaviour towards the brand, such as the opportunity to command premium prices, buyers who are more loyal, and more positive word-of-mouth reputation (Martenson, 2007). Some researchers developed in last years, have tested the effect of corporate image on customer satisfaction and loyalty (e.g. Abd-El-Salam et al., 2013; Yu and Ramanathan, 2012). Their empirical findings showed that corporate image plays the important role in founding and retaining customer loyalty in the markets. Additionally, these authors found that customer satisfaction and corporate image perceptions positively influence service loyalty, with satisfaction having a greater influence on loyalty than image. Thus, corporate image is believed to create a positive effect on customers' satisfaction. When customers are satisfied with the service provided of company, their attitude toward the company is enhanced (Srivastava and Sharma, 2013). Based on the reported research, it is proposed:

H₄: Corporate image has positive relationship with customer satisfaction.

H₅: Corporate image has positive relationship with customer loyalty.

Perceived Value

The perceived value is the customer's overall evaluation of the value of a product or service based on the perception of what is received and what is given (Nguyen, et al, 2018). According to Matzler, Bidmon and Grabner-Kräuter (2006) the pricing strategy is a main determinant to strengthen and improve the customers' satisfaction and loyalty, indeed in the retail industry, the pricing strategy and the value perceived is as much or even more important than the perceived service quality in the corporate strategy. Consequently, a suitable pricing model and a favourable perceived value positively strengthen the business's global success in the retail industry (Nikhashemia, Paim, Sidin and Khatibi, 2014).

Some research have also reported that perceived value variation has beyond the close relationship with quality service adopts a significant relationship with product delivery and customers' expectations and loyalty. Several authors have also found numerous perceived value influences on quality service (e.g. Liu and Lee, 2016; Nugyen, et al, 2018). This does not mean that the perceived value will have be low to exist satisfaction, but that the value perceived by the customer will take into account the received and its relationship with the price paid. Previous studies on goods have showed that the perceived value relationship was considered enough important for customer satisfaction (Qin and Prybutok, 2008). In the area of service industry, Hsin-Hui, Jay and Thanika (2009) confirm that the perceived value of a hotel positively and significantly influences the corporate image. Thus, this study proposes the following hypothesis:

H₆: The perceived value has a positive influence on the corporate image.

H₇: The perceived value has a positive influence on the customer satisfaction.

H₈: The perceived value has a positive influence on the customer loyalty.

Customer satisfaction

In the services industry, the customer satisfaction is the outcome of the customer's perception of the value received in a transaction or relationships, where value equals perceived service quality, compared to the value expected from transactions or relationships with competing vendors (Zeithaml, Parasuraman and Berry, 1990). Satisfaction is also considered as a consequence of the customer's post-buy evaluations of both tangible and intangible brand attributes and a key determinant of customer loyalty (Krystallis and Chrysochou, 2014). More value for customer incomes great satisfaction, which can benefit the retail enterprise in the long term (Cronin, Brady and Hult, 2000) and generate higher profits. Customer satisfaction is found to be dependent on the quality of service presented to the customer and is one of the instruments to enhanced value for customers. According to Gundersen, Heide and Olsson (1996) the central point of customer satisfaction is to identify the crucial attributes, considered by customers as their needs and expectations. The key to customer satisfaction lies in identifying and anticipating customer needs and especially in being able to satisfy them. For Dominici and Guzzo (2010) enterprises which are able to rapidly understand and to satisfy customers' needs, make greater profits than those which fail to understand and satisfy them. Additionally, Sirdeshmukh, Singh and Sabol (2002), reported that customers' satisfaction has close relationship to brand loyalty as well as service quality. Analogous claim is presented by Hoq and Amin (2010), who postulated that customer satisfaction is the emotional tendency of a customer towards repurchase of products and services offered by a retail store. In order to be successful, especially in the retail industry, managers must concentrate on retaining existing customers by implementing effective strategies towards customer satisfaction and loyalty, since the cost of attracting new customers is higher than the cost of retaining existing ones (Yuen & Chan, 2010). Based on these findings, it is proposed that:

H₉: Customer satisfaction positively influences customer loyalty.

Customer Loyalty

Customer loyalty has been usually defined as occurring when customers repetitively buying goods or services over time and retain positive attitudes towards the enterprise delivering the goods or services (Yuen and Chan, 2010). Customers frequently develop an attitude toward purchasing based on a prior service experience or, still, this attitude can also be influenced by previous information, based on the image of the retail in the market and even by word-of-mouth (WOM recommendation). With reference to the previous conception, customer loyalty has been usually defined as a combination of attitudes and

behaviour that becomes a profoundly held commitment to repurchase or support a preferred product/service consistently in the future (Oliver, 1980). The literature suggests behavioural intentions as a construct which permits the evaluation of customer loyalty. These are behaviours related to the intention to repurchase and even to the intention of recommending the product/service (Sumaedi and Yarmen, 2012; Yuen and Chan, 2010; Zeithaml, et al., 1990). Some studies developed in service industry have found the positive relationship between perceived service quality and loyalty (Wong, Dean and White, 1999). In this sense, behavioural intentions can be define as the customer's judgment about the likeliness to repurchase in this firm or the willingness to recommend the firm to others. We conceptualize behavioural intentions as a higher-order construct consisting of (1) positive word-of-mouth (Boulding, Kalra, Staelin and Zaithaml, 1993), (2) willingness to recommend (Parasuraman, Zeithaml and Berry, 1994), and (3) intentions to continue buying from a particular service provider (Bowen and Shoemaker, 1998). Based on previous definition, behavioural intention in this study may be described as a stated likelihood to repurchase in the retail stores in the Centre of Portugal and to recommend the traditional store to family, friends and others in the future. There is also ample evidence of the influence of service quality on behavioural intentions, a huge body of research has demonstrated the significant relationship between service quality and customers' behavioural intentions (Parasuraman, Zeithaml and Malhorta, 2005; Sousa and Voss, 2010). In a multi-industry study, the authors later provided evidence of the significant effect of perceived service quality on customers' favourable behavioural intentions, such as repurchase, tendency to say positive things and recommend the company. In addition Cronin and Taylor (1992), Zeithaml et al., (1996) and Fullerton (2005), find a favourable association between service quality and repurchase intentions, say positive things, and willingness to recommend. Therefore, we expect customers who perceive the quality of the service as high to be more likely to demonstrate loyalty intentions. The positive perceptions of service quality enhance the possibility of customers being dedicated in supporting the company and developing and strengthening loyalty behaviour (Yuen and Chan, 2010). The customer loyalty is perceived like as behavioural intention and several scholars consent it is a construct of three levels, namely person-to-person loyalty and person-to-firm loyalty (intention return) and recommendation (WOM). Yuen and Chan (2010) approved the relationship between salesperson loyalty and firm loyalty and they confirmed that the former will carry the latter. Moreover, Oh (1999) found a positive and significant relationship between intention to return and WOM recommendations. Based on these findings, it is proposed that:

H₁₀: Intention to return positively influences WOM recommendations.

H₁₁: Staff Loyalty positively influences Intention to return.

Therefore, in accordance with the aim of this research and the theoretical background presented above, Figure 1 presents the research model to assess the impact of: (1) perceived service quality directly contribute to customer satisfaction, customer-perceived value and corporate image; (2) corporate image and customer-perceived value directly contribute to customer satisfaction and customer loyalty; (3) customer-perceived value directly contribute to corporate image; (4) customer satisfaction directly influences customer loyalty (the intention to return, the loyalty to staff and Word-of-Mouth communication intention) and (5) the loyalty to staff has a direct influence on the intention to return and this has a direct impact on WOM recommendation.

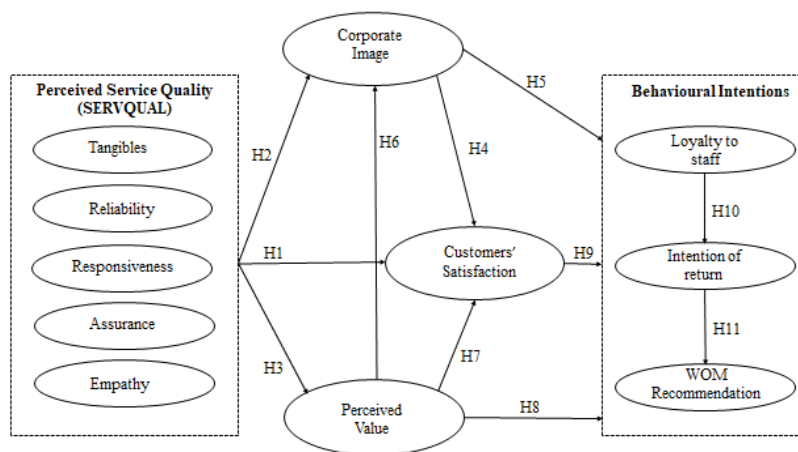


Figure 1. *Research model.*

DATA

A questionnaire was designed as a survey instrument, which included all the constructs of the proposed model. The questions in the questionnaire were based on a review of the literature in the area of the retail industry, as described above in the theoretical background. The research study was applied to customers from traditional retail stores in the Centre of Portugal during the first half of 2017. It was used a non-probabilistic sampling using convenience technique. The questionnaires were distributed online and the answers came from several cities and places of the central region of Portugal. In this study, respondents were required to fill out a three-page three sections. The first section consisted of a standard demographic profile of respondents. The second section contained the characterization of purchase process. The last section included the statements of dimensions and their sub dimensions. The measurement items to measure primary and sub-dimensions of service quality were adapted from several researchers (Cronin and Taylor, 1992; Dabholkar et al., 1996; Wu, Lin and Hsu, 2011) and a series of items focusing on the behavioural intentions, customer satisfaction, perceived value and corporate image, were adapted on the basis of several researchers' results (Nadiri and Gunay, 2013; Ryu, Han and Kim, 2008; Wu et al., 2011; Wu, 2013; Yu and Ramanathan, 2012; Yuen and Chan, 2010;

Zeithaml et al., 1996). Respondents were asked to use a five-point Likert-type scale (where 5-point scales anchored 1 = “strongly disagree” and 5 = “strongly agree”) to record their perceptions. Construct reliability was assessed by using the Cronbach’s alpha coefficient. Reliabilities ranged from 0.863 to 0.961, suggesting that the construct could be used with confidence. For the descriptive analysis it was used absolute and relative frequency tables. The Spearman correlation coefficients were used to measure the intensity of the linear correlation between variables. Multiple linear regression was used in order to estimate models that could identify the determinants of the behaviour of the variables under analysis. The significance level of 5% was assumed.

MODEL RESULTS

Demographic Profile

The sample of the Centre of Portugal was composed of total 249 respondents which 51% (127) were females and 49% (122) were males. The maximum number of responses was obtained from 35 - 44 years old with 35.7% (89) and the second age group from 45 - 54 years, with 22.5% (56) responses. Most respondents 53.8% (134), were married or in an unmarried partner, 39.4% (98) were single. It is verified most of respondents had secondary level qualifications, as 49.4% (123), on the other hand, 27.3% (68) were graduates; 4.4% (11) had postgraduate degrees; 8% (20) had a master's degree and 8% (20) were PhDs. As for the professional occupation mostly, 65.5% (163) were employed. In the activity sector, banking stood out with 26.9% (67) of the respondents, followed by education sector with 14.1% (35) of the individuals. Regarding the average annual income, it is observed that 32.5% (81) of the respondents earned between 7001€ to 20000€; 27.7% (69) earned between 20001€ to 40000€ and 18.5% (46) received annually between 40001€ to 80000€.

Purchase Process

The obtained results show that 99.9% of the respondents purchases in traditional trade. It was verified that 82.3% (205) of the individuals had made purchases in traditional trade there is more than 12 months. The most popular frequency of purchases registered was weekly, 38.6% (96) of the respondents go to the traditional trade once a week and 12.9% (32) do it daily. As for the average annual spending on purchases in the traditional trade, it was found that 32.1% (80) of the respondents spend under 100€ and that 36.5% (91) spend more than 400€ annually.

Correlation and regression analyses

The Table 1 shows the internal consistency of the dimensions and sub-dimensions of the scale used. It is verified that all the dimensions and sub-dimensions have internal consistency at least good, because in

some situations (Alpha of Cronbach higher to 0.90) the internal consistency is very good, suggesting that the construct could be used with confidence.

Dimensions	Subdimensions	Cronbach's Alpha
1 - Service Quality (SERVQUAL)	1.1; 1.2; 1.3; 1.4; 1.5	0.961
	1.1 - Tangibles	0.854
	1.2 - Reliability	0.842
	1.3 - Assurance	0.924
	1.4 - Responsiveness	0.728
	1.5 - Empathy	0.884
2 - Customer Satisfaction		0.877
3 - Perceived Value		0.921
4 - Customer Loyalty	4.1;4.2;4.3	0.907
	4.1 - Wow	0.952
	4.2 - Intention to return	0.863
	4.3 - Loyalty to Staff	-----
5 - Corporate Image		0.888

Table 1. *Composition of scale dimensions/ sub-dimensions and internal consistency*

The Table 2 shows that the dimensions that constitute Customer Loyalty present strong and direct correlations with the same, namely the dimensions: WOM and intention to return. The staff loyal contributes least to the behavioural intentions (customer loyalty).

Dimensions	Customer Loyalty
WOM	0.893**
Intention to Return	0.950**
Loyalty to Staff	0.679**

Table 2. *Spearman's correlation between Behavioural Intentions and its constituent dimensions.*

In the Table 3 it is verified that all scale dimensions have positive statistically significant correlation coefficients. The correlation between Service Quality and Customer Satisfaction is strong; as well as between Perceived Value versus Service Quality and Customer satisfaction; and between Customer Loyalty versus Service Quality, Customer Satisfaction and Perceived Value. However, the correlations of the corporate image dimension with the other dimensions were of moderate intensity.

	Service Quality	Customer Satisfaction	Perceived value	Customer Loyalty	Corporate Image
Service Quality	1	0.827**	0.744**	0.734**	0.632**
Customer Satisfaction		1	0.758**	0.774**	0.564**
Perceived value			1	0.750**	0.562**
Customer Loyalty				1	0.639**
Corporate Image					1

Table 3. *Spearman's correlation between dimensions of scale.*

Ordinary least squares regression was used to analyse each path in the conceptual model. Statistical assumption tests were assessed for each of the six regression models prior to the analysis in order to ensure a robust result. The results of the hypotheses tests are presented in Table 4. The application of the multiple linear regression model allowed us to obtain a parsimonious model that makes it possible to predict the dependent variable from a set of regressors (independent variables).

Dependent variable	Independent variables	Adjusted R2	F value (p value)	Standardized coefficients	t value (p value)
Customer Satisfaction	Constant	0.756	257.300 (0.000)	-0.401*	-2.441(0.015)
	Service Quality			0.574***	11.063(0.000)
	Perceived value			0.329***	6.832(0.000)
	Image			0.033	0.779(0.437)
WOM	Constant	0.769	165.873 (0.000)	0.243	1.450(0.148)
	Customer Satisfaction			0.092	1.395(0.164)
	Service Quality			0.153*	2.468(0.014)
	Perceived value			0.374***	7.147(0.000)
	Image			-0.032	-0.754(0.452)
Intention to Return	Intention to Return	0.671	102.372 (0.000)	0.382***	7.634(0.000)
	Constant			0.106	0.495(0.621)
	Customer Satisfaction			0.362***	4.850(0.000)
	Service Quality			0.256***	6.223(0.000)
	Loyalty to Staff			0.029	0.394(0.694)
Customer Loyalty	Perceived value	0.710	152.976 (0.000)	0.190**	3.110(0.002)
	Image			0.173***	3.483(0.001)
	Constant			0.061	0.328(0.743)
	Customer Satisfaction			0.359***	5.156(0.000)
	Service Quality			0.097	1.395(0.164)
Corporate Image	Perceived value	0.445	100.492 (0.000)	0.319***	5.566(0.000)
	Image			0.174***	3.767(0.000)
	Constant			0.523*	2.179(0.030)
Perceived value	Service Quality	0.633	215.223 (0.000)	0.499***	6.982(0.000)
	Perceived value			0.210**	2.934(0.004)
	Constant			0.044	0.202(0.840)
	Customer Satisfaction	0.633	215.223 (0.000)	0.506***	7.102(0.000)
	Service Quality			0.323***	4.537(0.000)

Table 4. A summary of regression models.

In the first regression model which tests the influence of service quality, perceived value and corporate image on the variation of customer satisfaction. The model obtained is at a statistically significant level of significance of 1% ($F = 257.300$; $p\text{-value} = 0.000$), that is, the variation of customer satisfaction is explained significantly by the estimated model. By the application of the test t , we conclude that service quality ($\beta = 0.574$; $p\text{ value} < 0.001$) and perceived value ($\beta = 0.329$; $p\text{ value} < 0.001$) determine significantly the behaviour of customer satisfaction. The corporate image regressor is not presented significantly in the variation of customer satisfaction. The adjusted coefficient of determination reveals that the model presented explains, on average, about 75.6% of the variation of customer satisfaction. Consequently, this model supports the first and the seventh hypothesis and refutes the fourth hypothesis.

The second regression model that relates WOM with the regressors: customer satisfaction, service quality, corporate image, perceived value and intention to return is at a significance level of 1% statistically significant. The service quality, the perceived value and the intention to return determinants influenced significantly the variation of WOM, by application of the test t we achieve that service quality ($\beta=0.153$; $p\text{-value}<0.05$); perceived value with coefficient $\beta = 0.584$ and $p\text{-value}<0.01$ and intention to return with coefficient $\beta = 0.382$ and $p\text{-value}<0.001$; are statistically significant. The customer satisfaction and the corporate image regressors are not presented significantly in the variation of WOM recommendation. The estimated model explains, on average, about 76.9% of the WOM variation. Thus, this model supports the eleventh hypothesis.

In the third regression model that relates intention to return with the regressors: customer satisfaction, service quality, loyalty to staff, perceived value and corporate image is at a significance level of 1% statistically significant. The followings determinants of the model influenced significantly the variation of intention to return, as the test t, customer satisfaction with coefficient $\beta = 0.403$ and $p\text{-value}<0.001$; loyalty to staff ($\beta=0.256$; $p\text{-value}<0.001$); perceived value with coefficient $\beta = 0.190$ and $p\text{-value}<0.001$ and corporate image with coefficient $\beta = 0.173$ and $p\text{-value}<0.001$; are statistically significant. The estimated model explains, on average, about 67.1% of the intention to return. The service quality regressor is not presented significantly in the variation of intention to return. Thus, this model supports the tenth hypothesis.

The fourth regression model that relates customer loyalty with the regressors: customer satisfaction, service quality, perceived value and corporate image is at a significance level of 1% statistically significant. The service quality regressor is not presented significantly in the variation of customer loyalty. The others determinants of the model influence significantly the variation of customer loyalty, because by the test t customer satisfaction with coefficient $\beta = 0.359$ and $p\text{-value}<0.001$; perceived value with coefficient $\beta = 0.319$ and $p\text{-value}<0.001$; corporate image with coefficient $\beta = 0.174$ and $p\text{-value}<0.001$ are statistically significant. The estimated model explains, on average, about 71% of the customer loyalty variation. Therefore, this model supports the fifth, octave and ninth hypothesis.

The fifth regression model that relates corporate image to the service quality and to the perceived value is at a significance level of 1% statistically significant. The estimated model explains, on average, about 44.5% of the corporate image variation. By the application of the test t, the perceived value with coefficient $\beta = 0.210$ and $p\text{-value}<0.01$ and service quality regressor ($\beta=0.499$; $p\text{-value}<0.001$), can be conclude that, determine significantly corporate image behaviour. Therefore, this model supports the second and the sixth hypothesis.

The sixth regression model that relates perceived value to the service quality and to the customer satisfaction is at a significance level of 1% statistically significant. The estimated model explains, on

average, about 63.3% of the perceived value variation. The determinants of the model influence significantly the variation of perceived value, because by the application of the test t , the customer satisfaction with coefficient $\beta = 0.506$ and p -value <0.001 and service quality regressor ($\beta=0.323$; p value <0.001), can be conclude that, determine significantly perceived value behaviour. Therefore, this model supports the third hypothesis.

CONCLUSIONS

The main objective of this study was reached since it was possible to analyse the mediating factors of the satisfaction and loyalty customer. More specifically, the model designed to examine the proposed objective allowed to assess the relationships between the following mediating relationships in the traditional retail stores of the Centre of the Portugal: quality service, brand image and perceived value with satisfaction and customer's loyalty. Moreover, the model constructed allowed to evaluate the hypotheses formulated, as well as it provides a major contribution for the retail managers to better understand the implications of the dimensions of service quality, perceived value, customer satisfaction and brand image on customer loyalty and, consequently, on the profitability of the traditional retail stores.

The findings validated the research hypotheses with the exception of the fourth hypothesis. In this sense, this research demonstrates that service quality directly influences the corporate image, perceived value and customer satisfaction and, concurrently, those influence back the behavioural intentions. The positive relationship between quality of service and corporate image suggests that customers who received a high quality of service while consuming services would create a favourable image of the traditional retail store; similarly as the positive relationship between the service quality and the perceived value, which demonstrates that the high quality of service received by customers contributes to increase their perception of the value received by the purchase. Furthermore, the relationship between customer satisfaction and perceived value is positive, but the relationship between corporate image and customer satisfaction is not found to be positive and significant. Nevertheless, corporate image, perceived value and customer satisfaction directly influence customer loyalty. Thereby happy and satisfied customers generate their favourable behavioural intentions to return, or recommend, the traditional retail store while experiencing a high level of service quality that produces a favourable corporate image and greater perceived value. Likewise, the level of satisfaction of the customers positively affects their word-of-mouth about traditional stores of the Centre of Portugal and the customers' intentions to revisit a retail store. The results are consistent with the literature about this topic. In some research such as the one developed in this paper, satisfied customers have higher levels of intention for revisiting traditional stores, loyal customers to staff are more willing to revisit the

traditional retail store, and their satisfaction levels induce them to provide a positive word-of-mouth communication to friends and families. Perceived value and corporate image has been found to have a positive effect on behavioural intentions, implying that customers create their positive overall impressions of the image of traditional store retail as well as when they understand that the traditional store has delivered a high value, being consequently more likely to return or revisit this type of stores in the future.

The research presented here offers a contribution to the managers of the traditional retail stores of the Centre of Portugal, in the sense they can use this research findings in order to improve their understanding of the variables that create a pleasant purchasing experience and contribute to increasing customers' loyalty. Moreover, the customers who return or revisit the traditional retail stores can help retail management to achieve a good reputation through a positive word-of-mouth. Additionally, retail management should be aware and assess the customer-relevant sub-dimensions to improve traditional trade' competitiveness. This information may be used to enable management to accurately measure customers' perceptions of their overall experiences in the traditional trade. Furthermore, the traditional retail stores should continue to emphasize on quality service and on making an effort to offer more personalized experiences for their customers. Great service has the potential to considerably develop perceived utility for customers (Disfani et al., 2017). Therefore, the managers and owners of the traditional retail stores should realise that service quality in the retail industry definitely influences customers' future favourable behavioural intentions through satisfaction, perceived value and corporate image.

In a different strand of analysis and discussion, it is worthwhile to mention that the main limitation of the research presented here is the use of the convenience sampling technique, as the study could eventually obtain a greater meaning and general importance if random sampling method would be used instead.

Finally, one can highlight that the main contribution of this study is adding to the growing literature focused on the retail industry, being aware that such condition is uttermost important for traditional retail in Portugal, as research and literature is still lacking. This paper contributes to mitigate such gap, by offering evidence that supports practitioners and retail management in their quest for customer satisfaction and loyalty, and subsequent reward in terms of the sustainability and profitability of traditional retail businesses.

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RANKING OF COUNTRIES BY INDUSTRIAL GROWTH RATE

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ABSTRACT

The author's rating of the countries is analyzed in the article on the basis of indicators characterizing their industry development in the era of transition to a post-industrial economy. Understanding of the processes of the world industry organization can help to find the ways of structural transformation of the Russian economy.

A strong secondary sector, primarily the powerful manufacturing industry, is a direct path to economic prosperity in the post-industrial economy. One of the main indicators of the level of social and economic development of the countries are still indicators of the level of industrialization, the features of the functioning of manufacturing industry and the export of industrial products. The author's ranking was carried out in three groups of indicators, which characterized: the level of the country's economic development, the level of manufacturing industry development and the export of industrial products. A matrix of data was developed for 9 indicators, reflecting the level of manufacturing industry development in 117 countries. For each indicator (criterion), the rank of the country was determined (position in the general list from 1 to 117). The first place in each rating table corresponds to the highest value of the indicator, and the last - to the lowest one. To obtain integral indicators, the ranks of countries for each indicator were summed up, and the integral rank was determined. The leaders of the rating list received the least number of points, and outsiders - the maximum. The final rating list of 117 countries was compiled. Based on the analysis of 9 criteria for the manufacturing industry development, the positions of the countries are characterized in the final rating. It was revealed that the leaders in this ranking of modern industrial development are: the Republic of Korea, Ireland, Germany, Switzerland, Singapore, Japan, China, Czech Republic, Malaysia, Sweden. The United States is the 17th, Russia is the 33rd in this rating.

The authors are convinced that the data of the rating tables (especially for individual blocks of indicators) should be used as a tool to analyze the problems in the economic and industrial state policies and to develop strategies for achieving sustainable economic growth and progress.

Keywords: industry, manufacturing, secondary sector, industrialization, ranking of countries, informatization.

INTRODUCTION

While all the processes are taking place rapidly in the world, the states still remain on different levels of development: agrarian, industrial and post-industrial. Since the industrialization continues to spread, the modern phase of the process has its own features. Servitization of the economy has become one of the major features. It means a rapid growth of a service sector for consumers. But the transition to the post-industrialization takes place along with a new qualitative development of the secondary sector and a growing process of global industrialization. The level of industrial development affects the grade and quality of development and performance of other economic sectors and it affects the work and personal aspects of life of the population.

We often hear the forecasts on "the real economy recovery", on a trend of global re-industrialization, on a devaluation of a term "de-industrialization" and even on the term "post-industrialism" itself. Nowadays we notice the repatriation of manufacturing, creation of new jobs in economically developed countries on both sides of the Atlantic (Draper, 2013; Kondratiev, 2014; Rodionova, 2014; Rodionova et al., 2016). And this is a "reindustrialization and a neo-industrialization» (Tolkachev, 2015; Shwab, 2017). This is a process of improving of the productive power which will finally lead to the technotronic era in the development of the society with the transition to the knowledge-based, high-tech, more efficient and environmentally friendly industry - «Industrie 4.0», «Internet of Things – IoT» (Industrie 4.0, 2014; Hermann et al., 2015).

Many scientists state that in a modern innovative economy the GDP growth will be mainly achieved by manufacturing and import-export of high-tech goods and services (Gierańczyk, 2010; Crescenzi and Rodriguez-Pose, 2011; Rodionova, 2013). The article describes the development research on different countries and their implementation to practice, including practice of the largest multinational corporations.

Thus, the setting of the objectives of this study, which consist in compiling a ranking of countries, was determined by the requirement to understand the deepening differentiation between the states by their nature and the pace of the ongoing process of industrialization and structural shifts in the economy. The study characterizes the level and qualitative indicators of industrial development of countries.

ANALYSIS OF INTERNATIONAL RATINGS

The rankings, made up on the basis of integral indexes of innovative development are a good experience for composing global rankings (The Global Innovation Index, 2015; The ICT Development Index, 2015; The Networked Readiness Index, 2015; The Global Competitiveness Index, 2015-2016). They show the role of implementation of scientific researches, while increasing more and more attention to the commercialization of the newest technologies in the process of implementation of innovations on the domestic and global markets. **The authors of the article will also consider the features of the development of the Russian industry of different historical periods (Rodionova and Kokuytseva; 2011; Kholina and Mironova, 2012).**

A number of works are dedicated to the features of industrial sector development that characterize structural shifts in the economy of the selected countries and regions of the world (Gierańczyk, 2010; Rachwał, 2011; Kholina and Mironova, 2012; Dominiak and Rachwał, 2016; Innovation²⁰¹⁶). The authors of the article have also reviewed the issues of industrial development in the countries of different stages of development (Rodionova, 2014; Rodionova et al., 2016). The Industrial Development Reports say that the key factor of a labor capacity growth in the industry is structural changes in this industry (Industrial Development, 2016).

The 2016 Global Manufacturing Competitiveness Index (GMCI) report describes the impact of manufacturing on a global economic development: on the growth of infrastructure, work places creation, contribution to GDP growth. The analytical part of the article carefully studies 6 countries: USA, China, Japan, Germany, the Republic of Korea and India. Thanks to their competitive manufacturing, the economies of these countries form about 60% of the global GDP (Global Manufacturing, 2016).

Studying the UNIDO's Industrial Development Report has contributed to proceeding with our research (UNIDO Industrial Development, 2016). The report analyzes many issues such as manufacturing development and structural change, technological change within manufacturing, technology and innovation to drive productivity and economic growth. The principal conclusion is that technology can lead to a permanent development. However, it depends on the possibility to use available technologies. And they differ from country to country. State support for integration of innovations is essential, as we see it in China and the Republic of Korea.

UNIDO has been calculating Competitive Industrial Performance (CIP Index) for a number of years. The countries are ranked by the index that shows their rating of industrial capacity, technological upgrading and their impact on a global manufacturing and trade. The CIP index combines four main dimensions of industrial competitiveness: industrial capacity, manufactured export capacity,

industrialization intensity and export quality. Eight indicators are used to measure these dimensions (indicators of competitive industrial performance by economy): manufacturing value added - MVA per capita (2005 \$), manufactured exports per capita (current \$), medium- and high-tech MVA share in total manufacturing (percent), Share of MVA in GDP (percent), medium- and high-tech manufactured exports share in total manufactured exports (percent), manufactured exports share in total exports (percent), impact of a country on world MVA (percent), impact of a country on a global manufacturing trade (percent).

Competitive Industrial Performance (2016) - CIP rank (of 148 ranked): 1. Germany; 2. Japan; 3. China; 4. United States of America; 5. Republic of Korea; 6. Switzerland; 7. Belgium; 8. Netherlands; 9. Singapore; 10. Italy (Russia – 32nd position) (UNIDO Industrial Statistics, 2017). It was pointed out that EIT countries (former socialist countries) and also China, Brazil, Mexico and South Africa were changing their industrial structures. It was mentioned that developing industrial countries had already achieved 30% in a global manufacturing value added and manufacturing exports by 2013. The shift has been achieved by a rapid growth of the Chinese industry.

CIP characterizes the abilities of countries to produce and export of manufactured goods competitively. According to the experts of UNIDO opinions, competitiveness is a more complete characteristic of economy rather than a current rate of economic growth (Mironov, 2013). Compared to other composite indexes such as indexes of the World Economic Forum and International Institute for Management Development, CIP by UNIDO is the youngest one.

Earlier Russia including the authors of the article has also attempted to classify the countries by their level of economic and industrial growth (Rodionova and Tykunova, 2002; Rodionova, 2003).

In our opinion, it makes sense to discuss not the drawbacks of international ratings (or a set of criteria used in them), but the features of their application for characterizing a particular phenomenon of life. We think that the ratings help to determine the state of the object (in this case - the economy or the industrial sector of the economy of a particular country). You can determine the nature of the problem and its solutions on the basis of the analysis of statistical data, analytical forecasts, models and other tools.

METHODOLOGY OF THE RESEARCH

To obtain necessary data for the purpose of the current research we have investigated the following sources: statistical database of UNIDO, the World Bank, the National Science Foundation of the USA and other sources. We decided to analyze the development of industrial sector of the economy of 117 countries by 9 indexes of 2015.

Originally, the list consisted of 140 countries for analysis. However, we have found the data in official sources (for all nine analyzed indicators) only for 117 countries. These indicators characterize the level and features of the manufacturing industries development. Therefore, some states were not covered by our research. But these countries were mostly developing ones (the group of least developed countries). There is no statistical data of them in international databases. At the same time, we took into account the fact that in these countries the level of industrial development is extremely low (mainly it is connected with the development of extractive industries). And in our research the main attention was paid to reflecting the situation in the manufacturing industry (including high-tech industries). Therefore, we are convinced that the research of 117 countries is quite representative.

We have made calculations and composed a ranking, reflecting features of industrial development of the 117 analyzed countries. The rank of a country in the list was defined by each index. The higher the index, the higher rank the country gets. To obtain the integral index all rankings of a country were summed up without weighting factors. The leaders of the ranking have minimal indexes in the total sum of the ranking. The final rating list of 117 countries was drawn up.

Thus, the methodology of the ranking composition is supposed to be objective and aims on estimating the level of manufacturing and high-tech sectors of economy of the countries.

Let us characterize the chosen indexes of the ranking. The survey was made by 3 group of indexes: common level of the economic development, the level of manufacturing and the features of innovative development and structure of the high-tech manufacturing export. All chosen indexes were relative, not absolute (% or per capita).

The first group of indicators reflects a common level of the economic development. For example, GDP per capita (PPP), in our opinion, reflects a common level of the economic development of the states and defines a level of industrialization.

The indicator of electricity consumption per capita differs significantly from country to country. The authors according to the statistics of British Petroleum calculated this indicator. The manufacturing sector is a main electricity consumer. However, we need to take into account that highly developed countries have decreased electricity consumption by launching energy-saving technologies and rational usage of electricity. To some extent, it leads to a lower sensibility of this index. One more index reflects a share of industry in GDP (percent). But it should be noted that this indicator does not always correctly characterize the level of industrial development in the country. For example, in many countries (especially developing countries) the extractive industries are more advanced.

The second (main) group of indexes characterizes directly the features of a world manufacturing industry. These are a share of MVA in GDP (percent); MVA per capita (2005/\$); impact of a country

on world MVA (percent). And here are two more indexes, such as a share of machinery and chemicals in manufacturing (percent). Besides, we calculated a relative "level of industrialization" or "the coefficient of industrialization". It shows the level of industrial development and a role of each state in a global industry. This index was calculated by the authors and shows us an impact of a country on a world MVA (percent) to a share of a world population (percent). This criterion of the level of industrial development of states was subsequently compared with the final rating of 117 countries (the correlation is very high). .

	The ICT Development Index	The relative level of industrialization	GDP per capita (PPP)	MVA per capita	Electricity consumption per capita	The author's rating of the countries in terms of the level of manufacturing industry development
The ICT Development Index		0,74	0,78	0,74	0,72	0,83
The relative level of industrialization	0,74		0,76	0,95		0,74
GDP per capita (PP)	0,78	0,76		0,78	0,82	0,64
MVA per capita	0,74	0,95	0,78		0,63	0,75
Electricity consumption per capita	0,72		0,82	0,63		0,58
The author's rating of the countries in terms of the level of manufacturing industry development	0,83	0,74	0,64	0,75	0,58	

Table. 1. The results of the calculations of the correlation between the indices

The third group of indicators characterizes the features of innovative development of the countries and a structure of manufactured exports in the states. These indicators include high-tech manufactured exports per capita (*calculated by the authors*) and a share of high-tech exports in total manufactured exports (percent) and integrated indicator - The ICT Development Index. It was developed in 2007 on the basis of 11 indicators by which the International Telecommunication Union (a specialized UN unit), defines the world standards in the field of ICT. The indicators relate to the accessibility and use of ICT, as well as the practical knowledge of these technologies by the population of the countries covered by the research (176 countries). In our opinion, the level of development of

ICT today is one of the most important indicators of the economic well-being of the state, and serves as a major factor in the development of high-tech industries. Therefore, authors selected it to characterize the modern manufacturing industry.

We measured correlation coefficients by 9 indicators (second and third groups) that show the level of industrialization of the states. All criteria were also compared with indicators of the level of economic development of countries (from the first group): GDP per capita, electricity consumption per capita and "relative industrialization ratio". The formula for calculating correlation coefficients was used as the standard (calculated in the Excel program). The main results are shown in the following table (Table 1).

The high dependence revealed by us indicates that all indicators selected for analysis and rating really reflect the features of industrial development in countries and their differences. They prove that only those countries in which the economy bases on knowledge and ICT can be leaders by high-tech industry production per capita. Countries with a high level of innovative development and the use of ICT in industry achieve the greatest results in increasing the well-being of citizens (as indicated also by their indicators of manufacturing output and GDP per capita). However, this synergistic effect is possible only if a certain threshold is reached for using the latest technologies and the level of socio-economic development of the state.

We would like to note that there is a direct correlation between the selected indicators. The correlation between the manufacturing industry production per capita and consumption of electricity per capita is only 0.6. The correlation between GDP per capita and the ICT index is 0.78. The correlation coefficient between GDP per capita and the high tech industry production per capita is the lowest. But it shows that not only highly developed countries are now engaged in the production of high-tech products, but also developing ones, including mainly for export. Thus, we have identified indicators that, in our opinion, allow us to describe the level of development of the process of industrialization in different countries of the world with a high degree of reliability in 2015.

Interpretation of the results

Let us analyze the ranking of the countries according to the data of 2015. The calculations were made in 3 versions: by all 9 indicators (see Methodology), by 4 indicators (MVA per capita, high-tech manufactured exports per capita, share of high-tech manufactured exports in total manufactured exports, share of manufacturing industry in GDP) and by 3 indicators: MVA per capita, high-tech manufactured exports per capita, share of MVA in GDP. The ranking results comparing 15 leading countries and Russia are given below in the Table 2.

№	Country	№	Country	№	Country
Ranking by 9 indexes		Ranking by 4 indexes		Ranking by 3 indexes	
1	Republic of Korea	1	Republic of Korea	1	Ireland
2	Ireland	2	Singapore	2	Republic of Korea
3	Germany	3	Ireland	3	Switzerland
4	Switzerland	4	Switzerland	4	Germany
5	Singapore	5	Germany	5	Singapore
6	Japan	6	Czech Republic	6	Czech Republic
7	China	7	Malaysia	7	Austria
8	Czech Republic	8	Japan	8	Japan
9	Malaysia	9	Austria	9	Malaysia
10	Sweden	10	Slovenia	10	Slovakia
11	Slovenia	11	China	11	Sweden
12	Austria	12	Thailand	12	Slovenia
13	Denmark	13	Sweden	13	Belgium
14	Thailand	14	Denmark	14	China
15	Israel	15	Belgium	15	Hungary
33	Russia	36	Russia	45	Russia

Table. 2. Positions of countries in rankings

The ranking showed the same groups of leading countries measured by 9, 4 and 3 indexes accordingly. The Republic of Korea, Ireland, Singapore, Switzerland, Germany, Japan, China, Austria, Sweden, Denmark, and Belgium are always on the top of the list. They slightly change positions towards each other in the group of the leaders. These are mostly the highly developed countries including The Republic of Korea (which UNIDO experts consider to be on a stage of industrialization – “industrialized economies”). However, the group of leaders also includes China, Malaysia and Thailand.

Not only high GDP per capita but also qualitative indicators of manufacturing industry development (MVA per capita, share of MVA in GDP, high-tech manufactured exports per capita) determined the leading positions of the countries a top list.

It is quite evident why China is on the top of the ranking. The indicators of this country per capita are low but grow rapidly. China has become a leader in many sectors of industry and even by high-tech manufactured exports. The competitive advantages of China are rather high. And we see the proof in a Competitive Industrial Performance Index 2016, calculated by UNIDO. China ranked third behind Germany and Japan and followed by USA and the Republic of Korea (UNIDO Industrial Development, 2016).

This fact proves a hypothesis that it is necessary to be more careful with the selection of indicators characterizing features of development of countries, growth of their industry, competitiveness and the prospect of development of these countries in the future. In each case they will vary to some extent. It will depend on the purpose of the research.

Our research confirmed the fact that the global process of industrialization is taking place under different conditions, by different ways, at a different pace. It showed the unevenness of industrial development of countries. Analysis and comparison of the rating tables showed the difference in the growth of developing countries. Globalization and features of a modern international manufacturing outsourcing has helped some developing countries (the Republic of Korea, Singapore, China, Malaysia, Thailand, Mexico, Argentina, Turkey, Brazil) to grow, become equal or even surpasses some developed ones by many indicators. Persian Gulf monarchies have also occupied quite high positions in the ranking (UAE – 20th position, Qatar – 24th, Saudi Arabia – 31st, Bahrain – 37th, Kuwait – 38th, Oman – 41st). For comparison: Belarus has ranked 32nd, Spain 33rd and Russia has ranked 34th. Post-socialist countries of Central and Eastern Europe and the CIS countries are integrating to the world economy by different ways and occupy different positions in the ranking of industrial development composed by the authors. Thus, the Czech Republic is on the 9th position, Slovenia is on the 13th, Hungary is on the 23rd, Poland - 23rd, Belarus - 32nd, Hungary - 50th, Kazakhstan - 54th, Azerbaijan is on the 84th, Kyrgyzstan is on the 86th.

At the same time some Asian or Latin American countries which have shown a recent rapid growth towards industrialization are not included in the group of developed countries yet. And a major part of developing countries (especially the African ones) are still far behind others in their industrial development. This fact is confirmed by our ranking. And among outsiders we see Guinea, Tanzania, Uganda, Ethiopia, Rwanda, Burkina Faso, Benin, Mali.

DISCUSSION

The ranking table analysis has led us to the following conclusion. For making the rankings it is important to choose the right indicators of global industrialization development. For instance, the famous rankings (including the ranking of the World Economic forum and the International Institute for Management Development) lack the indicators characterizing industry. They only contain a list of indicators characterizing the development of the entire economy. The IMD ranking only contains one index of the level of industrialization of the economy - it is a share of industry in the GDP. This indicator may be higher in the countries with a developed or poorly developed (or less developed) mining industry. The above-mentioned Competitive Industrial Performance Index gives higher positions to the countries with more developed manufacturing industry, implying that the trends of its development will contribute to the long-term growth of the entire economy. Thus, all three rankings are complementary.

In our ranking we tried (similar to the UNIDO ranking) to characterize the level of development of the industrial sector of global economy of countries in terms of development of manufacturing industries and manufactured exports. In our view we could not reflect the level of industrial goods competitiveness.

We are convinced in the following: the manufacturing value added (MVA) per capita is the basic indicator of a country's level of industrialization. Data of MVA per capita shows a country's capacity to add value in manufacturing. But the capacity to manufacture does not necessarily mean the capacity to manufacture competitively.

The capacity to export is a key ingredient for economic growth and competitiveness in a globalizing world. Manufactured export shows whether national production is really competitive internationally or not. The intensity of industrialization is measured by two indicators: the share of manufacturing in GDP, and high-technology activities in MVA (high-technology exports per capita; high-technology exports in all manufactured exports of country). The latter is a measure of the technological complexity of manufacturing

The researchers should find a simple and illustrative method to measure the progress of qualitative changes in the global industry. The structure of the economy (share of industry in GDP) – is not the best indicator of quality. Both international and national statistics are improving every year, but also cannot adequately meet the needs of measuring of the "new economy" quality.

Thus, the countries with highly industrialized economies form the top of our ranking 2015 (according to UNIDO classification). The structures of their manufacturing industry are similar. First of all, the following goods are presented there: chemicals and chemical products; office, accounting and computing machinery; motor vehicles, trailers, semi-trailers; machinery and equipment n.e.c. (totally they form 50% of the manufacturing industry). The structure of industry of Ireland somehow differs from the tops of the ranking (share of chemicals and chemical products is 49%) (UNIDO Industrial Statistics, 2017). Let us also note that Ireland (as well as Qatar, Luxembourg, Singapore, Kuwait) is a world leader in terms of GDP per capita (in a purchasing power of currencies). But the advantage of Ireland is not a total level of development of the country, but it is a possibility of a legal placement of foreign companies on its territory. That is why Ireland has one of the highest rates of MVA per capita - the second position after Switzerland (being ahead of Singapore, Germany and Japan). Considering the size of the population, the country leads a list of relative coefficient industrialization (being ahead of Switzerland, Denmark, Singapore and Japan) and also takes the 2nd position in a high-tech manufactured export per capita (after Singapore and Switzerland). Such a high position of Ireland in some indicators of industrial development has allowed it to take a leading position in our ranking.

Continuing the discussion on the indicators that reflect improvements in global industrialization we came to the conclusion that the best of them are high-technology exports per capita and high-technology exports in all manufactured exports of country.

We would like to point out once again that both the content and the quality of the chosen indicators affect the ranking of the countries. Thus, China has taken only the 7th position in our ranking table. However modern China takes a high position in the rankings by the level and features of industrial development (considering the potential of Hong Kong, even though the data on China and Hong Kong are presented separately in the international statistics). The unprecedented growth of China's industry permitted it to enter the group of the world's largest producers and exporters of industrial goods, although the same indicators per capita are still low. Thus, according to the statistics of UNIDO, in 2016 China shared about 24% in a global manufacturing (for comparison - share of the USA is 16%, of Japan - less than 9%, of Germany - 6,5%). However, MVA per capita (PPP) in USA is 6074,6 USD in constant prices for 2010, in Japan - 8514,2 USD, in Germany - 9595,0 USD and in China only 2170,2 USD (though its higher than average global indicator of 1660 USD and much lower than in developing countries) (UNIDO Industrial Statistics, 2017).

In our research we analyzed not absolute (by the volume of manufacturing or manufacturing export), but relative indicators per capita.

It is important to emphasize the features of the methodology for calculating positions in the ranking. To obtain integral indexes (on selected indicators) we summed them up without weighing factors. But if the countries had the same indexes in the ranking tables, mathematical methods did not automatically place these countries in the same positions but placed them in order of priority. It mainly concerned less developed countries of Asia and Africa, which have become outsiders in the ranking list. The indicators of machinery in manufacturing (%) and chemicals in manufacturing (%) have especially distorted the overall picture.

And the last one. In our opinion, for calculating the integral index of industrialization, it is necessary to consider the participation of countries in a global value added chains (GVC). Nobody has ever done it before. Meanwhile, such a project like World Input-Output Database (WIOD), under the aegis of the European Commission, is an attempt to estimate the contribution of countries to a global value added chains, even in the dynamic mode (Mironov, 2013). These indicators significantly change the picture of the distribution of the added value in the world and it will definitely affect the list of countries in the rankings. The share of manufacturing in GDP of developed countries is decreasing. Though it does not mean a decrease in industrial sector development of these states. On the contrary, we can see a phenomenon of a highly developed post-industrial industry (a paradigm of development «Industrie

4.0» and Internet of Things»). Besides, this fact can be explained by "invisibility" of the participation of the developed countries in global value added chains, which is higher in reality (Kondratiev, 2014).

At the same time we can see the increase of a share of manufacturing in GDP of developing countries - first of all in China, India, Mexico, Brazil and others. But such transfer of manufacturing to China and other developing countries allows multinational companies to make additional profits. The project WIOD showed that the statistics on a share in a high-tech manufacturing export of China can be exaggerated because the share of China in a manufactured product is only 3-4%, the rest part of a cost is shared by other countries (Draper, 2013). However, according to the current methodology, the full cost of a product is counted as a Chinese high-tech export.

CONCLUDING REMARKS

An alternative basis for assessing the level of the country's industrial development (different from previously used methods) is applied in our research. It is based on the analysis of a set of criteria for the manufacturing industry development. The analysis revealed the representativeness of the indicators chosen for the research and the establishment of the rating list of countries and the high correlation between the index indicators in the obtained rating and individual indicators of the economic development of states.

Although the regions of the world are different, the scientific, technological and innovative potential of states makes them capable of creating diverse ways of sustainable growth. Globalization and the fragmentation of industrial production at the international level have contributed to the diffusion of new technologies through the intensification of trade of high-tech industrial goods.

In our opinion, the international ratings reflect the unevenness of industrial (and innovative) development of states. So, highly developed countries and some developing ones (Republic of Korea, Singapore, China, Malaysia) have the leading positions in the authors' rating. The level of manufacturing industry development is still low in most developing countries, it is reflected in their positions in the international rating. Countries with high levels of development, high incomes and some developing countries implement various strategies for economic growth and development based on innovative initiatives. Some of them successfully build up their industrial and innovation potential, while others continue to experience difficulties or are still very far from it (as, for example, many African countries).

At the same time, it is necessary to research particularly the components of the indices, to pay more attention to them. They show where and by what positions the country lags behind, where it is necessary to change the situation, to correct it for the better.

It makes sense to talk not about the drawbacks of international ratings (or the set of criteria used for their creation), but about the features of their application for characterizing a particular phenomenon of life. In our opinion, the ratings help to determine the state of the assessment object (in this case - the economy and the industrial sector of the economy of a particular country), to establish the nature of the problem and to know how to solve it based on the analysis of statistical data, analytical forecasts, models, etc.

The compiled rating of the industrial development of the countries showed that, to a high degree of accuracy, it characterizes the disproportions in the world. The hypothesis of our research is confirmed. Highly developed countries and some developing ones have the leading positions in the world industry. In the context of globalization and the transnationalization of the world economy, the fragmentation of industrial production at the international level contributed to the spread of new technologies, including through the intensification of trade of high-tech industrial goods.

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PUBLIC-PRIVATE PARTNERSHIPS: PROBLEM OR SOLUTION?

FEATURES AND TRENDS IN EU-28

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ABSTRACT

The recent global economic and financial crisis has generated new challenges for all public governments. In a number of countries, anti-crisis packages included higher public actions, realized also through Public-Private Partnerships (Burger et al., 2009). Public-Private Partnership (PPPs) combines the resource of government with those of private agents in order to realize social aims (Skelcher, 2005). In this paper, we realize a brief literature review on PPPs models and we present PPPs in EU with a specific focus in Italy. The trends demonstrate a rethinking about Public-Private Partnership in developed countries and it underlines the constraints and challenges for successful PPP projects.

Keywords: Public-Private Partnerships, Financial Project Initiatives, Italy, EU-28, PPPs models

INTRODUCTION

The recent global economic and financial crisis has generated new challenges for all public governments, in advanced and emerging countries. In a number of countries, anti-crisis packages included higher public actions, realized also through Public-Private Partnerships (Burger et al., 2009). There is no one commonly definition of Public Private Partnerships (PPP). PPP describes a “range of possible relationships among public and private entities in the context of infrastructure and other services” (ADB, 2012: 1). For Skelcher (2005: 347) “Public-Private Partnership combines the resource of government with those of private agents (business or not-for-profit bodies) in order to deliver social goals”.

The PPP Knowledge Lab defines a PPP as “a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance”. This definition:

- Includes Private Public Partnerships that offer for both new and existing assets and services;
- Contains PPPs in which the private party is remunerated entirely by service users, and those in which a public administration makes some or all payments;
- Incorporates contracts in many sectors, provided there is a public interest in the provision of these services and the project involves long-life assets.

The stories of Public-Private Partnership are numerous:

- In 1588, 82 percent of Sir Francis Drake's fleet were private contractors to the Admiralty (Rossi and Civitillo, 2014);
- Down to 1700 The Spanish empire was built on such private-public mixes, in fact "Spanish government relied principally on private contractors to supply both soldiers and ships" (Wettenhall, 2005: 28) ;
- Tony Blair government, report a commitment of £35.5 billion by the UK government for 563 Private Finance Initiative contracts (Edwards et al., 2004).

History indicates that there were always some degree of cooperation between the public sector and the private sector (Wettenhall, 2003), but in the last years "academic interest in their use and effectiveness as economic development tools appears to have increased in the past decades" (Rossi and Civitillo, 2014: 141).

This paper has this structure: first, we realize a brief literature review on PPPs models; second, we define the research methodology (aims, value and limitations); after we present PPPs in EU-28 with a specific focus on Italy. The article ends with a brief discussion on evaluation observations and implications.

PUBLIC-PRIVATE PARTNERSHIPS MODELS: A LITERATURE REVIEW

The European Commission has not defined PPPs at Community level. Generally, this term refers to "forms of cooperation between public authorities and the world of business which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service" (Commission of the European Community, 2004: 3).

Rosenau (1999), Brinkerhoff (2002) and Wettenhall (2003) remark on the proliferation of definitions of partnership. Coburn (1995), considered partnership a synonym of cooperation. Savas (2000), views PPPs as a new way to handle infrastructure projects, such as building tunnels and renewing harbours. Muetzelfeldt (2001) emphasized the importance of mutual obligations and confidence that must have precedence, while Chalmers and Davis (2001) stressed the commercial nature of the relationship. They underline: "Contracting fragments program responsibility among multiple contractors, and separates policy agencies from service delivery contractors" (Chalmers and Davis, 2001: 74). In addition, Van Ham and Koppenjan (2001) focalise their attention on cooperation. In fact, they define PPPs as "cooperation of some sort of durability between public and private actors in which they jointly develop products and services and share risks, costs, and resources which are connected with these products" (Van Ham and Koppenjan, 2001: 598). The huge number of PPPs definitions show the complexity of this phenomenon. So, we can sustain the Hodge and Greve's point of view: "we might

observe that the reasons behind PFI-type PPPs have changed over time and are — like the rationale behind outsourcing policy decisions — somewhat slippery” (Hodge and Greve, 2007: 548).

Today, Public-Private Partnerships (PPPs) take an extensive variety of forms varying in the extent of involvement of and risk taken by the private party (Figure 1).

With the term “Management Contract” (MC) we define a range of contracts – from technical assistance through to full-blown operation and maintenance agreements – and so it is difficult to generalize this term. The main common structures are that the conferring authority engages the contractor to manage a range of activities for a short time period, generally from 2 to 5 years. Management contracts tend to be commission specific and input rather than output focused. In the MC the public sector is the investor, and risks, obligation and duration are defined to public administration.

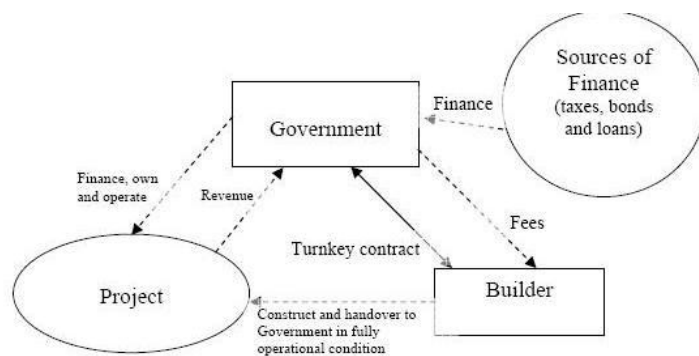
Figure 1. Public-Private Partnerships models



Source: <http://www.unescap.org>

Turnkey is a traditional public sector procurement model for infrastructure facilities (United Nation ESCAP, 2018). A private contractor is selected through a bidding process. The private contractor designs and builds a facility for a fixed fee, rate or total cost. The contractor assumes risks involved in the design and construction phases (Figure 2). In this case, the involvement by the private sector concern the investment but it is generally low and for a short-term.

Figure 2. Turnkey contract: an example



Source: <http://www.unescap.org>

Leases contracts are “public-private sector arrangements under which the private operator is responsible for operating and maintaining the utility but not for financing the investment” (Worldbank, 2018). In this contract, there is a balancing between public and private parts in terms of involvement and risks. The key elements of leases are (Worldbank, 2018):

- a medium length (between 8 and 15 years);
- assemblage risk passed to operator in lease;
- cost of maintenance and some replacement passed to operator (operator takes some degree of asset risk in terms of the performance of the assets);
- review process every 4 or 5 years to review performance, costs, tariff levels, etc.

The concession model is a particular form of contractual PPP. In this model there is a direct link between the Private Partner (PP) and the final user: the PP offers a service to the public “in place of”, and under the control of, a public administration. The PP assumes the responsibility linked to the construction, operation and maintenance of the infrastructure, charging users for the service. The main concession model characteristics are:

- a long contractual periods (25-30 years);
- the concessionaire takes risk for the condition of the assets and for investment;
- general public is usually the customer and main source of revenue for the concessionaire.

In a PPP of a purely contractual nature, the partnership between the public and the private sector is based solely on contractual links, whereas in a PPP of an institutional nature there is cooperation between the public and the private sectors within a distinct entity. Both arrangements involve delegated management of the traditional public sector activities to the private sector. In the first type of PPP, the rights and obligations regulated by an administrative contract or series of contracts. In the second, they guaranteed by the company’s statutes and by the shareholder agreement between public and private parties. There is contractual regulation in both situations.

In the scope of purely contractual PPP, there are different kinds of arrangements that depend on the characteristics of the contractual relationship and delegation of tasks to the private partner. Some of the best-known models are in the development of urban infrastructure facilities: the associated provision of services corresponds to the “concession model”. In this situation, there is a direct link between the private partner and the final user: the private partner provides a service to the public “in place of”, though under the control of, a public authority. The private party assumes all the responsibility relative to the construction, operation and maintenance of the infrastructure assets, charging users for the service. Usually the concession model is associated with long contractual periods, matching the long asset life of infrastructure.

A variant of the contractual PPP relates to infrastructure systems where it becomes necessary to transfer funds from the government to assure the economic-financial balance (Merna and Njiru, 2002). This model, known as Private Finance Initiative (PFI), expected at sectors such as health (hospitals) or education (schools) where there was a periodical payment to the private partner for making that infrastructure available. This model has been extended to many other sectors (in particular transportation). More specifically, PFI is a long-term arrangement whereby a government department acquires (through competitive bidding) construction services for public infrastructure (e.g., a road), together with post-construction maintenance and services, from the private sector under a single contract in return for unitary payments linked to the latter's performance under the contract.

METHODOLOGY

The research based primarily on secondary data (EPEC, 2018; CRESME, 2017) and it describes the phenomenon of Private-Public Partnerships in European Union (EU), with a specific focus on Italy. The paper presents preliminary findings, and it is essentially a descriptive research. Methodologically the paper wants to identify and to analyse the dynamics and characteristics of PPPs.

The secondary research aim was to comprehend the phenomenon. These data helped to describe the Public-Private cooperation; to analyse the dynamics, trends and attributes of PPP in EU; and to define the number of operations.

The paper offering a valuable theoretical basis for empirical development and practical application, as well as a context of prescribed actions and processes. The limitations of the paper are a consequence of its very nature, i.e. the fact that it is a descriptive, secondary data-based research. Further, empirical research is therefore necessary to test the findings, to refine the contextual parameters involved and to prescribe target-specific action.

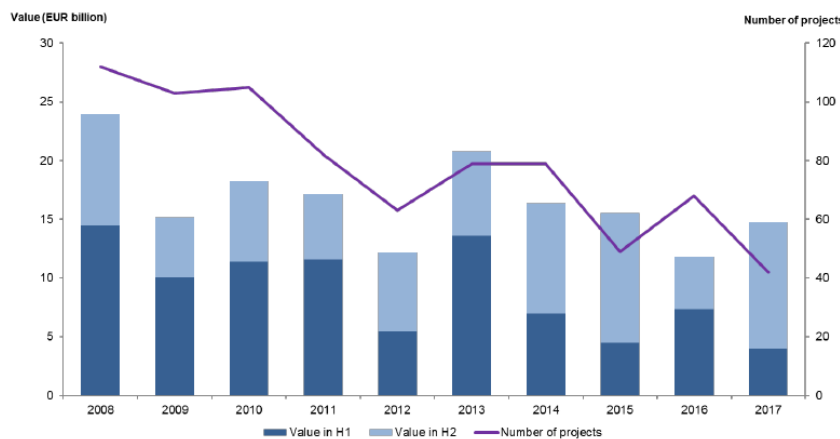
FINDINGS: THE PPPS PHENOMENON IN EU

The recent economic and financial crisis encouraged governments to introduce policies designed to reduce public spending (Heald and Steel 2018). In this way, PPPs can be a tool to solve this complex problem. In fact, in Europe, there have been more than 1,000 PPP-based (infrastructure) projects (Ahmad et al., 2018), with their capital value of approximately US\$635 billion representing around half of total PPPs worldwide (Public Works Financing 2011; Lamman et al. 2013).

PPPs in EU-28

However, the analysis of the EU-28 PPP Market in 2017 presents some conflicting data. In fact, in 2017, the aggregate value of PPP transactions that reached financial close in the European market totalled EUR 14.4 billion. In 2016, they were EUR 11.8 billion, so there was a 22% increase. However, the number of PPP transactions reaching financial close fell to 42 (the lowest number of transactions since 1997), compared to 68 in 2016, with a 23.5% decrease (Figure 3).

Figure 3. The EU-28 PPP Market by Value and Number of Projects (2008-2017)

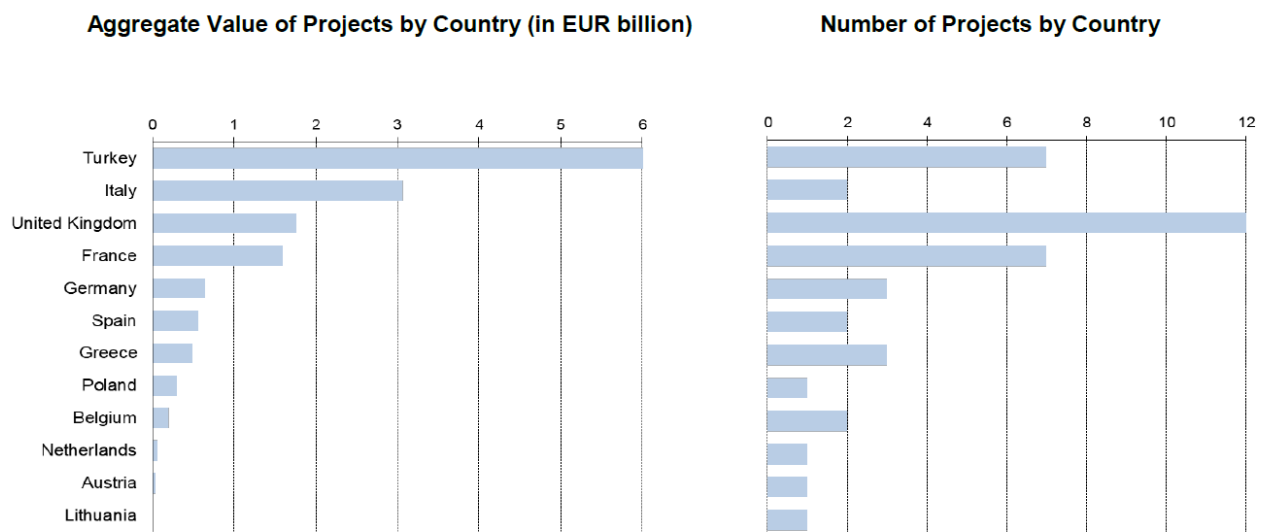


Fonte: EPEC, 2018

Another important data is the average transaction size because it is increased: from € 174 million in 2016 to € 351 million in 2017. The last year was characterised for eight large transactions¹ closed, compared to six in 2016. The analysis for countries shows that Turkey was the largest Private-Public Partnership market in the EU-28, in terms of value (Figure 4). The UK was the largest in terms of number of projects, with 12 deals closed. However, if we consider the eight large transaction, Turkey has five projects: Northern Marmara motorway (first section) with EUR 1.8 billion, Istanbul Ikitelli health campus with EUR 1.1 billion, Northern Marmara motorway (second section) with EUR 1.1 billion, Izmir Bayrakli integrated health campus with EUR 717 million, and Gaziantep integrated health campus with EUR 685 million.

¹ A large transaction is defined as deals of EUR 500 million or more in value

Figure 4. Country Breakdown by Value and Number of PPP Projects in 2017

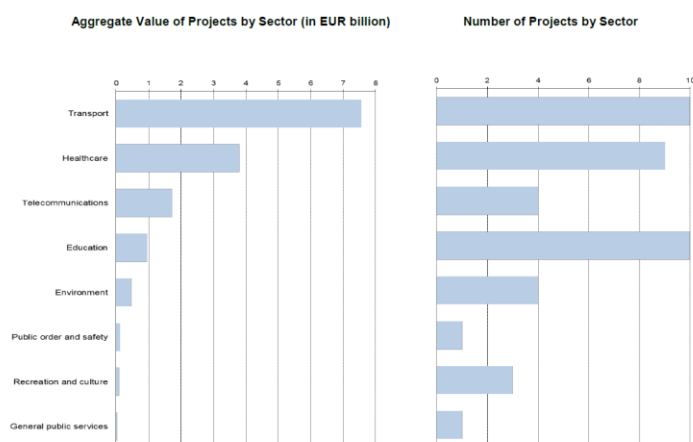


Fonte: EPEC, 2018

Italy was the second largest PPP EU-28 market in terms of value, with EUR 3.1 billion. “However, this was mostly accounted for by one large transaction (the Pedemontana Veneta toll road), which accounted for around 90% of the Italian PPP market (EPEC, 2018: 2)”.

The analysis of Public-Private Partnership for sectors shows that the transport sector was the largest in value terms with over EUR 7.6 billion worth of transactions (EUR 3.8 billion in 2016) (Figure 5). Healthcare was the second most active sector in terms of aggregate value: EUR 3.8 billion (EUR 2.1 billion in 2016). Instead, the education sector was characterised for a decrease of the number of projects (from 27 to 10). In addition, the aggregate value decreased to EUR 958 million (EUR 1.6 billion in 2016).

Figure 5. Sector Breakdown by Value and Number of PPP Projects in 2017



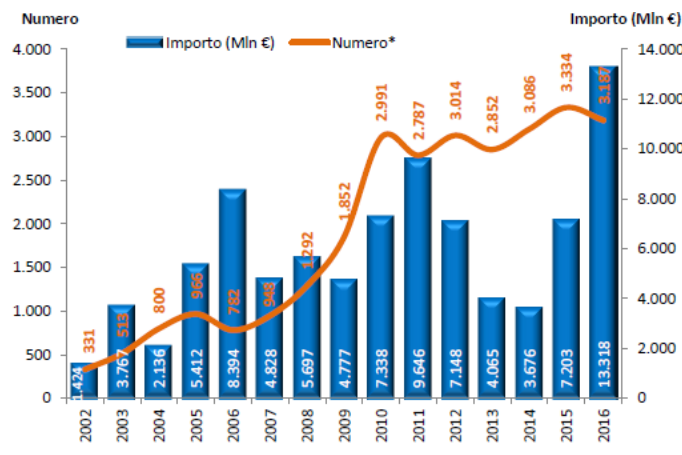
Fonte: EPEC, 2018

A five-years analysis (2013-2017) shown the UK and France led the EU-28 PPP market in terms of number of closed deals, while Turkey has been the largest PPP market in value terms: EUR 22.5 billion.

PUBLIC-PRIVATE PARTNERSHIPS IN ITALY

During 2002-2016, the Italian PPP market (CRESME, 2017) realized 28,735 tender procedures with a total market value of about 89 billion. The Italian PPP market has gone from 331 tenders for the amount of 1.4 billion in 2002 to 3.187 tenders for the amount of over 13 billion euros in 2016 (Figure 6).

Figure 6. PPPs tenders in Italy (2002-2016)

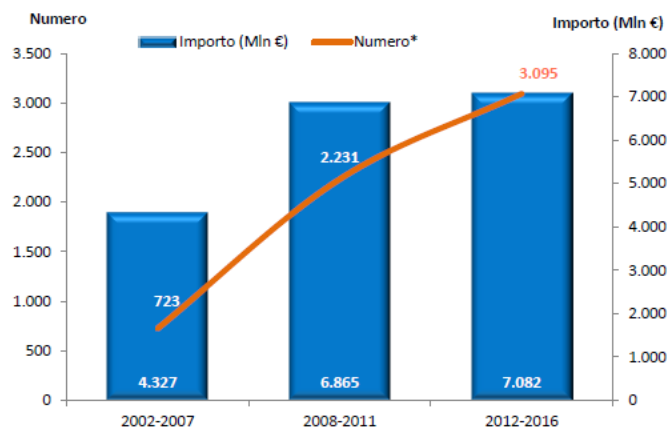


Fonte: CRESME, 2017

The history of Italian PPP market has three period (Figure 7):

- the start-up, from 2002 to 2007, with 723 initiatives; this is the first step for Italian PPPs market characterised for a (local and central) government euphoria,
- the regulatory rethinking, from 2008 to 2011, with 2,231 initiatives; this stage presents a review for PPPs use;
- the financial settlement, from 2012 to 2016, with over 3,000 initiatives; in this phase the Italian PPPs market mature a new (mature) structure.

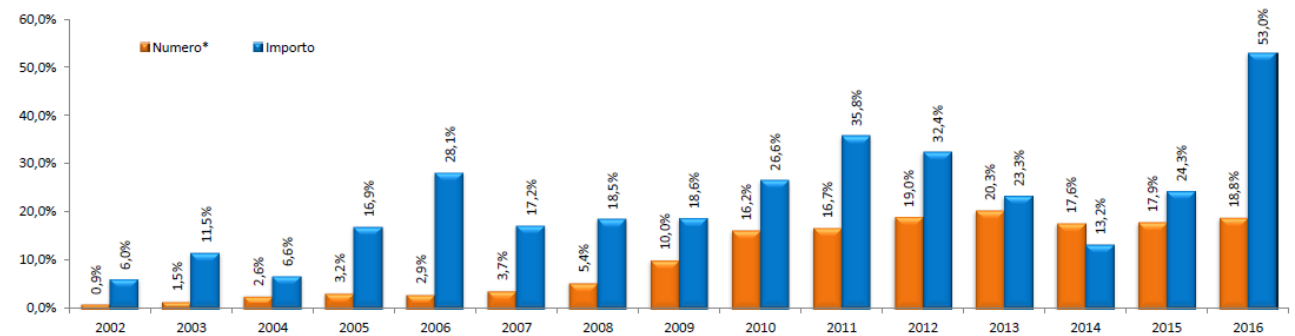
Figure 7. The evolution of Italian PPPs market



Fonte: CRESME, 2017

In the Italian context PPPs has an important impact on Public works. The trend – from 2002 to 2016 – is linear: from 1% to about 19% (Figure 8). If we consider the value of the projects the impact of PPPs grown from 6% in 2002 to 53% 2016 (the maximum level).

Figure 8. Italian PPPs market: relations between Public works and PPPs

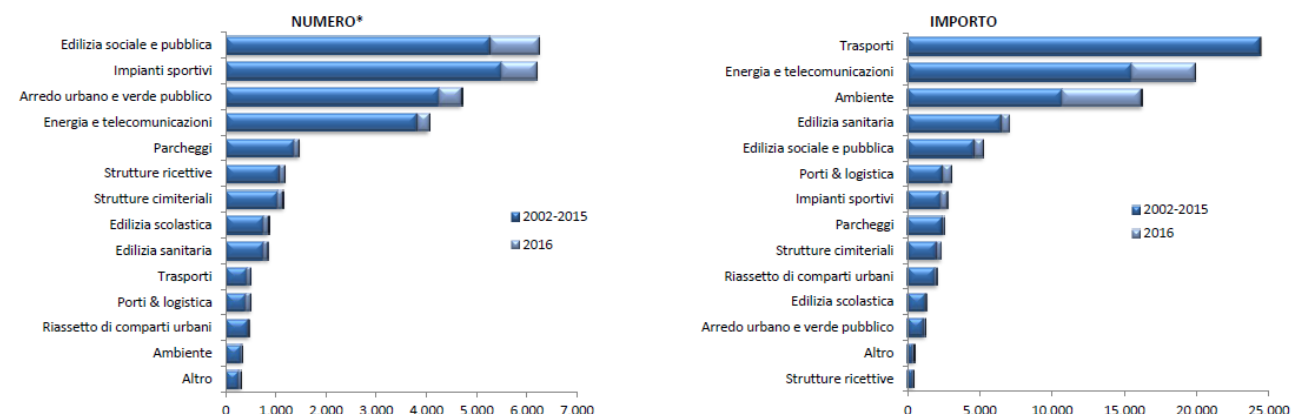


Fonte: CRESME, 2017

The analysis of Italian PPP for sectors shows an ambivalent result (Table 9):

- “transport” and “energy and communication” sectors were the largest in value terms; but
- “education” and “sport facilities” were the most active sectors in terms of number projects.

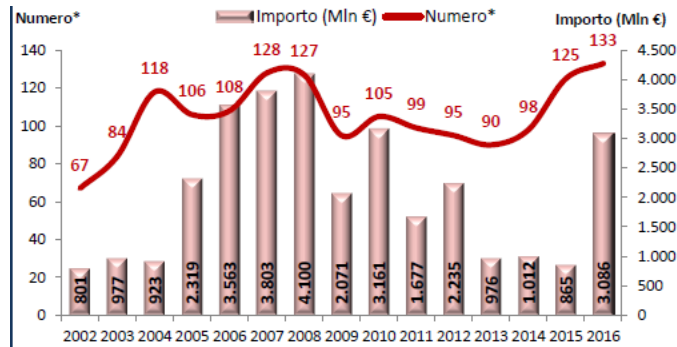
Figure 9. Sector Breakdown by Value and Number of PPP Projects in Italy (2002-2016)



Fonte: CRESME, 2017

The PFIs in Italy represent only the 6% of total initiatives, but they are the 35% of the PPPs Italian Market value (Figure 10). In Italy, between 2002 and 2016 there were 1,578 PPP contracts with Private Finance but the total market value was around € 31.6 billion. The initiatives increased from 67 procedures of 801 million in 2002 to 133 procedures worth over 3 billion euros in 2016.

Figure 10. Italian Private Financial Initiatives (2002-2016)



Fonte: CRESME, 2017

The PPPs Italian market presents some interesting results. The value of Public-Private projects increased in the last five years. They represent over 50% of Italian Public works, but – as in other countries – PPPs in general (and PFIs in particular) requires a deep analysis. In fact, it is necessary to verify where and when these partnerships have the greatest impact, and how they can represent a consistent solution to aid public government in this phase of post-crisis.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The PPP operations are complex, in which there are elements traditionally managed separately, such as the design, construction, management. This complexity requires the development of specific assessment, technical and planning skills (engineering, architectural and plant) and managerial skills (economic and financial). The World Bank Group (2016) underlines that: “The evidence shows that there is a positive and significant impact of private sector participation in access, quality of services, labour productivity, and reduction in technical losses. The magnitude of the impact varies by sector and size of the project and with the context, especially as it relates to the institutional and regulatory environment” (World Bank Group, 2016: 11). Furthermore, the recent economic and financial crisis onwards brought about renewed interest in Public-Private Partnerships. Facing limitations on public resources and fiscal space, while recognizing the importance of investment in infrastructure, governments are increasingly turning to the private sector as an alternative additional source of funding.

However, the Public-Private Partnership are not appropriate for all projects. In fact, if the PPPs represented an answer to financial crisis of national and local government, they has some disadvantages. In particular, the threats for a successful partnership are (Thomson Reuters, 2013):

- Transaction costs,
- Loss of Operational Control,
- Loss of an Ongoing Revenue Source, and
- Higher User Fees.

The practical experiences demonstrated that the costs of negotiating the Public-Private Partnerships documents are significant. However, these costs can be managed by standardizing PPP procedures. Furthermore, in many Public-Private Projects, the public administration delegates significant control over the project to the private sector. However, PPP contracts typically give the public agency extensive monitoring rights. The loss of an ongoing revenue source is a limited problem. In fact, the public agency often sacrifices the right to receive revenues on an ongoing basis from the public's use of the project. However, the government might receive a sum payment when the contract entered into or a share in the project's ongoing revenues. In any event, the lost revenues is linked also to the advantage that the public agency often also declines the expense of operating and maintaining the project. The real problem – for citizens – is the user fees: in asset monetization projects, the fees paid by the users may be higher than those they paid when the project was government managed. These costs are justified to the necessity – for the private sector – to retrieve the fee paid for the concession and make a profit.

The PPPs experiences demonstrated that not all these threats managed to public administrations and for this reason the public-private projects require a deep analysis to balance costs and benefits of each partnership.

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THRIVING IN MONO- AND MULTICULTURAL WORK ENVIRONMENTS: THE ROLE OF POSITIVE PSYCHOLOGICAL CAPITAL

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ABSTRACT

The aim of the study is to examine the relationship between psychological capital (PsyCap) and thriving in mono- and multicultural environments. We assume that thriving will vary while scrutinizing mono- and multicultural workplaces. We also posit that PsyCap is positively related to thriving and that this relationship will also differ depending on the organizational context. The samples of 238 individuals involved in intercultural interactions and working for various MNCs as well as the ones of 259 respondents having only monocultural interactions and employed in local enterprises were included in the cross-sectional study. International experience and job tenure were control variables. The results show that a higher level of thriving was observed with regard to the individuals involved in intercultural interactions. Moreover, a higher level of PsyCap was related to more thriving in both the mono- and multicultural workplaces. The PsyCap-thriving relationship was also stronger in the multicultural organizations.

Keywords: learning, intercultural interactions, monocultural interactions, psychological capital, vitality, thriving

INTRODUCTION

The research on thriving in a work context is emerging as a vital domain of inquiry. The phenomenon produces many positive outcomes for organizations (Baruch et al., 2014; Wallace et al., 2013). As a result, it attracts attention of scholars. Positive psychological capital (PsyCap) is another construct which has recently received an increasing importance in organizational studies. Likewise, it generates benefits for organizations (Avey et al., 2010). Although interest in both phenomena is growing, the interplay between them still needs a better recognition. Porath et al. (2012) emphasize that we should broaden the knowledge about thriving in relation to PsyCap, whereas Youssef and Luthans (2012) call for expanding “the boundaries of PsyCap to other contexts” (p. 22). There are also calls of other

researchers like Niessen et al. (2012) and Paterson et al. (2014) that more studies are needed with regard to the antecedents of thriving, including research on how personal resources (like e.g. PsyCap) stimulate thriving.

To respond to that calls, we refer to mono- and multicultural organizational contexts while analyzing thriving and PsyCap. Consequently, the aim of our study is to examine the relationships between PsyCap and thriving in mono- and multicultural work environments.

First, we explain how we define the organizational context and how we understand mono- and multicultural organizational contexts. Furthermore, we depict the theoretical foundation of the study. Then, we summarize prior research on thriving and PsyCap, both of which help us to substantiate the hypotheses. Afterwards, we portray the samples, methods and the research findings. Discussion and conclusions end the paper.

LITERATURE REVIEW

Mono- and multicultural organizational context

Scholars distinguish three approaches for analyzing context, one of which is applied in this research, namely comparative studies (Whetten, 2008), since we compare thriving and its relationship with PsyCap in mono- and multicultural organizational contexts in the workplace. The organizational context is defined as properties of an organization into which the phenomenon is embedded that have an impact on its dynamics and which persist beyond its life span (Klimkeit, 2013).

In our research, we distinguish between mono- and multicultural organizational contexts, following the features of a multicultural organization identified by other researchers and the peculiarities of a monocultural organization as the opposite to the former. Luring and Selmer (2011) define a multicultural organization as one that employs a high percentage of different nationalities while Adler and Gundersen (2007) expand the aforementioned characteristics with a global dispersion and multiculturalism. As a result, a multicultural organization has more than one national culture represented by its employees and frequently adopts an official language for the purpose of communication among its units. The workplace of such an organization is a multicultural one since people from various cultures interact with one another to achieve goals. Multinational corporations (MNCs) with their subsidiaries worldwide are a good example of multicultural organizations.

As the opposite, a monocultural organization employs mainly one nationality from the country it operates in; if there are some foreigners, their share in the overall employment is marginal, they have to adopt the existing organizational values of the majority as well as to speak the local language (Janssens and Zaroni, 2014). A monocultural organization is mainly focused on its domestic market

and a dominant type of its employees' social interactions are those within their own national culture. As a result, its workplace has features of monocultural one. Local, domestic enterprises, regardless of their size, usually fall into the above description. Nevertheless, it is worth mentioning that both the employees of a domestic enterprise may maintain intercultural contacts with stakeholders as well as the staff in MNC subsidiaries may interact mainly with the local people. Yet, these both types of organizational contexts are beyond the scope of our study.

The theoretical background

The theoretical framework for the study is set by means of a socially embedded model of thriving (Porath et al., 2012; Spreitzer et al., 2005). According to this model, *thriving* is associated with two conscious psychological states, i.e. a sense of vitality and learning, consequently capturing both the affective (vitality) and the cognitive (learning) aspects of personal growth. Vitality is connected with aliveness and energy, whereas learning is concerned with people's growth through acquiring new, applicable knowledge and skills (Porath et al., 2012; Spreitzer and Sutcliffe, 2007). The concept of thriving assumes that it is a socially embedded process deeply rooted in social interactions (Spreitzer et al., 2005). Therefore, thriving can be facilitated through various types of social interactions, including monocultural ones, i.e. within the same cultural group, and intercultural interactions, i.e. with foreigners who represent different cultural mental programming. In our study, we posit that each type of social interactions creates a different environment for thriving and that the prevailing type of such interactions is contingent on the organizational contexts (mono- vs. multicultural ones).

Psychological capital can be defined as a positive state of a person's development in terms of "four personal resources, i.e. self-efficacy, optimism, hope and resilience" (Youssef and Luthans, 2012, p. 18). Self-efficacy is associated with an individual's belief that s/he has the abilities needed to be successful with a specific task and within a given context. Optimistic people take a positive approach to solve problems, face challenges and cope with adversity (Luthans et al., 2010). Hope means "persevering toward goals and, when necessary, redirecting paths to goals (...) in order to succeed" (Luthans and Youssef, 2007, p. 334). Finally, resilience is an individual's ability to sustain and bounce back to reach success if there are problems or adversity (Luthans et al., 2007).

According to Conservation of Resources theory, PsyCap resources are like a caravan, i.e. a specific profile or constellation of personal resources which can help an employee to improve his/her functioning in the workplace. Moreover, the description of the personal resources included in PsyCap construct suggests that they may facilitate an employee's thriving at work (Boyd, 2015).

Prior research

To date, only a handful of quantitative studies on thriving have been conducted in an organizational context. At present, the prior research has explored the antecedents of thriving and its outcomes (e.g. Abid et al., 2016; Jiang, 2017; Niessen et al., 2012). There are also studies that treat thriving as moderators between the antecedents and the outcomes (e.g. Paterson et al., 2014; Wallace et al., 2013). Overall, the research emphasizes that thriving is a positive phenomenon for both individuals and organizations (e.g. Jiang, 2017; Ren et al., 2015; Rozkwitalska and Basinska, 2016). In addition, while analyzing the prior research, we found a gap as there is a lack of studies on thriving that compare various types of organizational contexts, i.e. mono- vs. multicultural ones.

With respect to the aim of this study, Niessen et al. (2012) demonstrate that thriving is strongly embedded socially. Likewise, Carmeli and Russo (2015) emphasize the role of positive social relation in thriving. Both studies by Rozkwitalska and Basinska (2015; 2016) scrutinize thriving in intercultural interactions and demonstrate that the learning component of thriving is particularly enhanced in a multicultural work environment of MNCs. Porath et al. (2012) state that thriving is determined by the work context in which it is embedded. Moreover, the overview of the literature suggests that a multicultural organizational context creates specific requirements different from other work contexts, which may create a peculiar environment for thriving. Therefore, we intend to verify whether in the multicultural organizational context of MNC, where employees are involved in intercultural interactions, their level of thriving varies with regard to the level experienced by employees in a monocultural workplace. Both the theoretical foundation of thriving as a socially embedded phenomenon as well as the above studies allow us to put forward the following hypothesis:

Hypothesis 1: The level of thriving varies between the mono- and multicultural work environments.

The studies concerning PsyCap demonstrate that it is positively related to the desired outcomes in a workplace such as, e.g., commitment, citizenship behaviors, performance, task mastery, creativity and innovation (Avey et al., 2010, 2011; Paek et al., 2015; Rego et al., 2012). Paterson et al. (2014) also reveal that PsyCap determines thriving. They conclude that a higher level of PsyCap fosters agentic work behaviors, which further contributes to thriving. Although the indirect relationship between PsyCap and thriving is confirmed in their research, there is still a gap concerning the direct links between both constructs as well as whether the organizational work context matters with that respect. As stated by other researchers, there is a need to extend the studies on PsyCap to different organizational contexts (Niessen et al., 2012; Paterson et al., 2014; Youssef and Luthans, 2012). Thus, we intend to test the following hypothesis:

Hypothesis 2: There is a positive relationship between PsyCap and thriving, yet it differs in the mono- and multicultural workplaces.

MATERIALS AND METHODS

Participants

We conducted a cross-sectional study between the years 2015 and 2017. We had two samples selected non-randomly. Sample 1 and Sample 2 reflect multicultural organizations and monocultural organizations, respectively.

Sample 1 concerns employees, both managers and specialists, working in subsidiaries of MNCs and involved in intercultural interactions. The main criterion to classify a subject to Sample 1 was the fact that s/he participated in intercultural interactions at work in a subsidiary of a MNC. We controlled whether a person met the criterion by two questions: “At work, I contact with foreigners (e.g. peers, contractors)” and “I work for a multinational corporation, i.e. a company with foreign affiliates” (the answer format was *yes/no*, while the classifying answers were *yes*). Accordingly, fully completed questionnaires were received from 238 participants aged 35 on average ($SD = 8.4$; range: 20-64) and with an average tenure of 6.2 years ($SD = 5.6$; range: 0.5 - 39 years). As far as the other demographics are concerned, there were 116 women (49%) in the sample and 92 respondents (39%) holding managerial positions.

Sample 2 concerns employees, both managers and specialists, working in local, domestic enterprises of various sizes and involved only in monocultural interactions. The main criterion to classify a subject to the study was the fact that s/he did not participate in intercultural interactions at work and was not employed by a MNC. We controlled whether a person met the criterion by two questions: “At work, I contact with foreigners (e.g. peers, contractors)” and “I work for a multinational corporation, i.e. a company with foreign affiliates” (the expected answers were *no*). Accordingly, fully completed questionnaires were received from 259 participants aged 38 on average ($SD = 10.4$; range: 19-64) and with an average tenure of 10.0 years ($SD = 10.1$; range: 0.5 - 49 years). As far as the other demographics are concerned, there were 170 women (66%) in the sample and 54 respondents (21%) holding managerial positions.

Instrument

We measured *psychological capital* as a caravan of resources and applied the shortened version of PsyCap – a copyrighted instrument (Luthans et al., 2007) with the permission granted to the corresponding author from Mind Garden Inc. (provided on December 18, 2014 and the additional one on November 9, 2017). This 12-item questionnaire evaluates the four psychological resources, i.e.

efficacy (3 items, e.g. “I feel confident contributing to discussions about the organization’s strategy”), resilience (3 items, e.g. “I can get through difficult times at work because I’ve experienced difficulty before”), hope (4 items, e.g. “I can think of many ways to reach my current work goals” and optimism (2 items, e.g. “I’m optimistic about what will happen to me in the future as it pertains to work.”), and uses the six-point Likert scale (from 1- *strongly disagree* to 6 - *strongly agree*). To calculate the PsyCap index, we needed to sum up the scores and divide them by the number of the items. The higher the scores, the higher level of PsyCap. In this study, Cronbach’s alpha were .87 in multicultural organizations as well as in monocultural ones.

We assessed *thriving* at work separately and with regard to its two components. Learning was measured by using a 5-item scale by Vandewalle (1997), e.g. “I enjoy new challenging and difficult tasks at work where I’ll learn new skills”. The participants evaluated each item using the six-point Likert scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The average of the sum of the scores for each respondent was then divided by the number of the items, which indicated his/her level of learning. As a result, the higher the scores, the higher the level of learning. Cronbach’s alpha were .87 and .84, in multi- and monocultural organizations, respectively.

Vitality, the second component of thriving, was assessed with the 3-item subscale of Utrecht Work Engagement Scale (Schaufeli et al., 2006) such as: “At my work, I feel that I am bursting with energy”. The respondents rated each item by means of the seven-point Likert scale, ranging from 0 (*never*) to 6 (*always/every day*). Their average of the sum of the scores was then divided by the number of the items, which allowed us to assess the level of vitality (the higher the scores, the higher the level of vitality). Cronbach’s alpha in the present groups were .89 and .84, in multi- and monocultural organizations, respectively

We also measured control variables such as *job tenure* and *international experience*. The latter was assessed as an index consisting of a set of different experiences in their both private and professional lives. The respondents had to evaluate their experiences on the bimodal scale (0 - no, 1 - yes) with regard to their work for a MNC in the past, work abroad, life abroad, studies abroad, overseas private and business trips as well as having a close family member of another nationality. To calculate each participant’s index, we summarized ‘yes’ answers and divided them by the items. Thus the higher the scores, the higher international experience. Reliability measuring r - tetrachoric iterative for binominal item were .80 and .84, in multi- and monocultural organizations, respectively.

Statistical analysis

The descriptive statistics and Pearson correlation coefficients were calculated. The differences between thriving in both work environments were examined by independent *t*-tests. The effect sizes were

calculated using Cohen's d coefficient. According to Cohen's (1988) guidelines, the results around 0.2, 0.5 and 0.8 indicate small, medium and large effect sizes, respectively. The relationship between psychological capital and thriving was established by using a multiple linear regression, separately for both components of thriving, i.e. vitality and learning. In these models of regression, job tenure and international experience were controlled. The standardized and unstandardized beta coefficients with 95% confidence intervals (CIs) were presented. Basing on the determination coefficient for multiple linear regression, the effect size was calculated, using Cohen's f -squared coefficient. In line with Cohen's (1988) guidelines, the results above 0.02, 0.15 and 0.35 indicate small, medium and large effect sizes, respectively.

RESULTS

Psychological capital was moderately correlated with the two components of thriving in both work environments, namely the multicultural organizations (i.e. MNCs) and the monocultural organizations. Likewise, learning and vitality were moderately correlated. In addition, the relationship between PsyCap and international experience was small (regardless of the work environments). Moreover, job tenure was positively (yet only slightly) related to PsyCap and vitality, however only in the MNCs (see Table 1).

Variables	Multicultural organizations N = 238		Monocultural organizations N = 259		[1]	[2]	[3]	[4]	[5]
	M	SD	M	SD					
[1] Psychological capital	4.58	0.63	4.24	0.60		.44***	.43***	.23***	-.04
[2] Learning	4.69	0.76	4.33	0.80	.61***		.35***	.13	-.02
[3] Vitality	3.71	1.20	3.42	1.10	.55***	.44***		-.02	.11
[4] International experience	0.59	0.21	0.23	0.20	.20**	.13	.11		-.15
[5] Job tenure	6.23	5.60	10.00	10.00	.20**	.08	.19**	.05	

Note. * $p < .01$; ** $p < .01$; *** $p < .001$. M = mean; SD = standard deviation. All coefficients are standardized. Correlation coefficients for multinational organizations are below diagonal.

Table 1. *The descriptive statistics, the Pearson product-moment correlation coefficients between study variables*

Hypothesis 1 predicts that multicultural and monocultural work environments vary due to different levels of thriving of employees. In our study, the individuals of the MNCs experienced greater learning than the employees in the monocultural organizations ($t_{(495)} = 5.19$ $p < .001$). The effect size of the differences in means for learning was moderate (Cohen's $d = 0.47$). Furthermore, the respondents from the multicultural organizations felt more vitality than the individuals working in the monocultural organizations ($t_{(493)} = 2.84$ $p < .01$). The effect size of the differences in means for vitality was small (Cohen's $d = 0.26$). Thus, hypothesis 1 is confirmed. The employees of the multinational

corporations experienced a higher level of thriving compared to the respondents working in the monocultural organizations.

Hypothesis 2 states that there is a positive relationship between PsyCap and thriving, yet it differs when compared the mono- and multicultural workplaces. We calculated models of regression for both components of thriving, learning and vitality, separately. In both models, job tenure and international experience were controlled.

The value of PsyCap was regressed onto learning in both work environments, the multicultural and monocultural ones ($\beta = .62$ $t = 11.49$ $p < .001$ and $\beta = .43$ $t = 7.37$ $p < .001$, respectively). Moreover, both models were significant. However, the effect size of the regression model in the MNCs was large while in the monocultural organizations was moderate. Thus, a stronger relationship between PsyCap and learning was observed among the employees working in the multicultural environment. Table 2 presents a summary of the regression model.

Variables	Multicultural organizations (MNCs)			Monocultural organizations		
	B	SE	95% CI	B	SE	95% CI
Constant	1.24***	.30	[0.648, 1.823]	2.13***	.29	[1.553, 2.705]
Job tenure	-0.01	.01	[-0.020, 0.008]	0.00	.00	[-0.008, 0.009]
International experience	0.01	.19	[-0.374, 0.384]	0.13	.24	[-0.335, 0.598]
Psychological capital	0.76***	.07	[0.630, 0.891]	0.51***	.07	[0.374, 0.646]
Adj. R^2	.37			.19		
F	46.57***			19.93***		
Cohen's f^2	0.59			0.24		

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. B = unstandardized coefficient; SE = standard error; CI = confidence interval; adj. R^2 = adjusted R-squared, the coefficient of determination; F = F-test; Cohen's f^2 = effect size f-squared for multiple linear regression.

Table 2. *The relationship between psychological capital and learning at work in multinational and monocultural organizations*

Subsequently, the value of PsyCap was regressed onto vitality in the multicultural work environment ($\beta = .53$ $t = 9.15$ $p < .001$) as well as in the monocultural organizations ($\beta = .46$ $t = 7.93$ $p < .001$). Both models of regression were significant but the effect sizes were different. Specifically, in the MNCs, the effect size was large and in the monocultural organizations was moderate. In addition, job tenure was significant in the regression model for the monocultural organizations. However, this effect was marginal ($\beta = .11$ $t = 1.99$ $p < .05$; 95% CI includes zero). Once more, a stronger relationship between PsyCap and vitality was observed among the employees in the multicultural environment when

compared to the individuals working in the monocultural organizations. Table 3 illustrates a summary of the regression model.

Variables	Multicultural organizations (MNCs)			Monocultural organizations		
	B	SE	95% CI	B	SE	95% CI
Constant	-1.12*	.51	[-2.128, 0.028]	0.17	.41	[-0.646, 0.978]
Job tenure	0.02	.01	[-0.006, 0.042]	0.01*	.01	[0.000, 0.024]
International experience	-0.01	.32	[-0.633, 0.638]	-0.62	.33	[-1.279, 0.036]
Psychological capital	1.03***	.11	[0.809, 1.253]	0.77***	.10	[0.582, 0.966]
Adj. R^2	.30			.20		
F	32.87***			22.29***		
Cohen's f^2	0.43			0.25		

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. B = unstandardized coefficient; SE = standard error; CI = confidence interval; adj. R^2 = adjusted R-squared, the coefficient of determination; F = F-test; Cohen's f^2 = effect size f-squared for multiple linear regression.

Table 3. *The relationship between psychological capital and vitality at work in multinational and monocultural organizations*

To sum up, hypothesis 2 is confirmed. A positive relationship between PsyCap and thriving was observed, yet it differs when compared the mono- and multicultural workplaces.

DISCUSSION

The study's results can be referred to Work Design Growth Model which assumes that individuals feel invigorated and learn when their workplace creates job demands that are not seen as hindrances, stimulating curiosity and when they are involved in social interactions that include novelty and diversity (Parker, 2017). MNCs offer a work environment that creates such challenges and stimulating interactions as people need to cooperate with foreigners (Rozkwitalska et al., 2017; Stokes and Oiry, 2012).

Our research has particularly revealed that the differences in the degree of learning in both organizational contexts were statistically important. This observation is coherent with the previous studies that emphasized working in MNCs and intercultural interactions is seen as a natural source of learning (Stokes and Oiry, 2012).

The results of our study also confirm the prior research (Avey et al. 2010) on PsyCap that is related to both components of thriving as well as broaden the scope of knowledge by revealing that in the work environments of MNCs this relationship is more profound.

PsyCap is also proved to be positively associated with vitality and appears stronger in MNCs. It may suggest that intercultural interactions at work make the very professional duties more exciting, interesting and enthusiastic. Vitality is therefore supported by PsyCap which may further impact on organizational learning as emotions are very important in enhancing this process (Gear et al., 2017).

CONCLUSIONS

To sum up, thriving is deeply rooted in social interactions at work and is connected with PsyCap (Carmeli and Spreitzer 2009; Niessen et al. 2012; Paterson et al. 2014), yet this phenomenon varies with regard to different work environments. A multicultural workplace may better stimulate thriving and promote it via PsyCap.

Contributions

Our research broadens the understanding of PsyCap in relation to thriving at work in different organizational settings, filling the gap in previous research. The study also supports the notion that thriving is a truly socially embedded phenomenon since interactions with others at work enhance thriving. Finally, as thriving was analyzed in relation to PsyCap, the paper adds to the Positive Organizational Scholarship and the Positive Organizational Behavior studies with that respect.

Practical implications

The empirical findings support the notion that social interactions are fuel for thriving. Thus, organizations should enable frequent interactions with others at work by a proper job design, e.g. a various form of teamwork. Since our research suggests that the multicultural workplace is more conducive to thriving than a monocultural one, additional opportunities for intercultural contacts for employees should be provided. Organizations should also look for employees with a significant capacity of PsyCap since it relates to thriving. Individuals with a higher level of PsyCap can accommodate themselves to a multicultural environment better than those with a lower level. Furthermore, since PsyCap is a personal resource of employees which can be improved, organizations may strengthen an individual's PsyCap by providing more organizational resources enabling social interactions (e.g. trainings, face-to-face meetings, etc.), consequently enhancing thriving of their personnel. This process is quite difficult but it is worth implementing (Nakhle and Davoine, 2016).

Limitations

The limitations of our study includes the following: 1) the sample composition – it comprised only Poles (on the other hand, it responds to the calls of Youssef and Luthans (2012) to expand the boundaries of PsyCap to other cultures than the ones of the U.S.), the employees of various MNCs and

domestic enterprises (the industry and company context other than multicultural vs. monocultural ones could not be captured in our data), there were more women than men in Sample 2; 2) the non-probabilistic sampling techniques do not allow for generalization of the findings; 3) a cross-sectional design was applied in the research, thus, the correlations in our analyses did not allow for scrutinizing the cause-and-effect relationships (however, it can be derived from the theoretical assumptions of PsyCap).

Future research

We recommend to respond to the above limitations in future research. We also recommend to scrutinize whether the relationship between PsyCap and thriving is stronger in multicultural environments of MNCs than in other organizational contexts by using a longitudinal design. The reciprocal relations between personal and organizational resources that foster thriving in both organizational contexts can also be a promising avenue for future research. Finally, more focus can be directed toward a deeper explanation why in a multicultural workplace the level of thriving was higher and the links between thriving and PsyCap were more substantial.

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IDENTIFYING OPEN INNOVATION SOURCES AND PRACTICES: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

This paper aims to identify open innovation sources and practices used in the literature in order to explain “where” and “how” firms can acquire knowledge and technologies to follow an open innovation journey. Through a Systematic Literature Review (SLR) from 2003 to 2017, 42 papers were identified and analysed to give us a better understanding of open innovation sources and practices adopted in past studies. The SLR identifies 19 OIS and 16 OIP used by previous studies, highlighting occurrences of each OIS and OIP. Overall, the study offers an original and comprehensive view of openness based on both OIS and OIP opening venues for future research and help managers understand how to begin the open innovation journey.

Keywords: open innovation; open innovation sources; open innovation practices; systematic literature review

INTRODUCTION

Collaborative innovation modes have been considered essential for the renewal of the firms in the last decades (Gulati, 1998; Baldwin and Von Hippel, 2011). Since the seminal work of Chesbrough (2003), collaborative innovation modes have been framed with the term “open innovation”, according to which firms can and should acquire and integrate external knowledge and technologies that are globally dispersed in the external environment. The main idea of this model is that firms improve innovation processes by integrating and leveraging external sources of knowledge and collaborating with different partners (Laursen and Salter, 2006; West and Bogers, 2014). Accordingly, firms explore and exploit external knowledge to enhance their innovation performance since external sourcing might have a mediator effect on firm performance, especially in knowledge-intensive firms which strive to find new solutions and business opportunities (Vrontis et al., 2017). The transformation into an open innovation (OI) model has become a need to maintain a competitive advantage and cope with the changes in the contextual environment. In the current globalized world of aggressive competition and fast pace of change, OI strategies become a key element for new product development and firm survival (Enkel et al., 2009; Schroll and Mild, 2011).

A key aspect in the OI literature regards the measurement of openness. However, the literature presents scattered and inconsistent perspectives about what openness is and how to measure the level of openness of the firm's innovation process. In fact, a major critique to the OI phenomenon is about the lack of coherence in the OI theoretical framework and assessment (Trott and Hartmann, 2009).

The literature proposes two main mechanisms of OI (Dahlander and Gann, 2010). The inbound mechanism refers to the acquisition of knowledge (Spithoven et al., 2013; Du et al., 2014), while the outbound regards the transferring of knowledge (Bianchi et al., 2011; Kutvonen, 2011). Considering the first mechanism, empirical studies have used different measures and theoretical views about openness. Most of the studies have followed the concept of search breadth and depth of knowledge sources to measure how open is a firm (Caloghirou et al., 2004; Laursen and Salter, 2006; Nieto and Santamaria, 2007; Chiang and Hung, 2010; Ahn et al., 2015). Breadth refers to the extent that firms access different external knowledge sources, such as customers, suppliers, competitors, universities and research centres, while depth regards the intensity of each relationship. However, these measures fail to provide a comprehensive view of the firm's innovation process. So, the absence of a comprehensive framework makes difficult to compare and validate the results about the effects of firms' openness on performance measures and to assess openness antecedents. For example, others studies, have measured openness in terms of open innovation practices (OIP) (van de Vrande et al., 2009; Parida et al, 2012).

This paper thus aims to fill this gap, shedding light on the OI model identifying open innovation sources (OIS) and OIP used in the literature in order to explain "where" and "how" firms can acquire knowledge and technologies to follow an open innovation journey.

The purpose is to help to understand what are the OIS and OIP available for firms, how literature has used these OIS and OIP in empirical studies, and to be a starting point for future studies on the specific topic, with the aim to stimulate a debate both for theory building scholars and managers. Through a Systematic Literature Review (SLR) from 2003 to 2017, 42 papers were identified and analysed. The SLR identifies 19 OIS and 16 OIP used by previous studies that hint a measurement framework for future studies about openness.

The remainder of the paper is organized as follows. First, we present the theoretical background referring to the literature on OI. Second, we present the methodology of the SLR used in this research. Finally, we present and discuss the results of the analysis, while also proposing several managerial and theoretical implications.

THEORETICAL BACKGROUND

Studies within innovation management field have emphasized the relevance of firms engaging in collaborative and networked activities in the last two decades (Gulati, 1998; Katila and Ahuja, 2002; Nieto and Santamaría, 2007). These new models contrast the view of a closed innovation process according to which a firm generates, develops and commercializes its own ideas with a tight control of knowledge (Chandler, 1990; Rothwell, 1992; Chesbrough, 2003). The OI paradigm has been developed in 2003 to extend those theories through a new perspective. In detail, it describes the inflow and outflow of knowledge and technology between the focal firm and the external entities (Chesbrough, 2003). More specifically, OI is defined as *“a distributed innovation process that involves purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization’s business model”* (Chesbrough and Bogers, 2014, p. 12).

Two main mechanisms describe the OI model. The inbound OI mechanism regards the leveraging of technological and knowledge capabilities developed outside the boundaries of the organization to integrate those developed internally (Kang and Kang, 2009; Spithoven et al., 2013; Du et al., 2014). In turn, the outbound OI mechanism entails innovation activities aimed at capturing value by transferring knowledge and technologies to other counterparts through, for example, licensing-out (Bianchi et al., 2011; Kutvonen, 2011).

Despite the large amount of theoretical studies on inbound OI, the literature has failed to provide a comprehensive framework to measure the openness of the firm’s innovation process with regard to knowledge acquisition. This is because each study uses different measures of openness and consider openness in different ways. In fact, a major critique to the OI phenomenon is about the lack of coherence in the OI theoretical framework and assessment (Trott and Hartmann, 2009). The absence of this framework makes difficult to compare and validate the results about the effects of firms’ openness of performance measures and openness antecedents.

Scholars have used the concept of openness degree in order to explain the weight of collaborations in the innovation process. In particular, a stream of studies considers the number of external sources of knowledge involved in the innovation process to measure openness (Laursen and Salter, 2006; Tether & Tajar, 2008; Chiang & Hung, 2010; Gronum et al., 2012; Lasagni, 2012; Ahn et al., 2015). Specifically, Laursen and Salter’s seminal work proposed the concept of search breadth and depth to describe the number of the external sources of knowledge and the intensity of the relationship with each source. Other authors have used the same measures (Ahn et al., 2015; Aloini et al., 2015; Bengtsson et al. 2015; Chen et al., 2016).

By contrast, other studies consider openness as the leveraging of different OIP (van der Meer, 2007; van de Vrande et al., 2009; Petroni et al., 2012; Michelino et al., 2015). Van de Vrande et al. (2009), for

example, propose technology exploitation in terms of venturing, licensing-out, and employee involvement, whilst technology exploration in terms of customer involvement, networks, external participation, outsourcing R&D and licensing-in. Parida et al. (2012) assess the openness in terms of technology scouting, vertical collaboration, horizontal collaboration and technology sourcing. Spithoven et al. (2013) focused on both sources and practices. First, they evaluate openness considering cooperation with several external sources. Second, they investigate several modes for accessing external knowledge. Also Ahn et al. (2015) used a mixed approach by considering several practices such as licensing-in, co-R&D, M&A, alliances, user involvement, spin-off and open sourcing.

Overall, most of the empirical studies on OI have followed the concept of search breadth and depth of knowledge sources to measure how open is a firm (Laursen and Salter, 2006; Nieto and Santamaria, 2007; Chiang and Hung, 2010; Ahn et al., 2015), while some studies have considered the OIP but incoherently. The methodology section will present all the OIS and OIP found in empirical studies in order to trace directions for future studies and shed light of this phenomenon from both a theoretical and empirical point of view.

METHODS

This paper draws particularly on theoretical evidence published in academic journals about open innovation, through a Systematic Literature Review (SLR), which is a method of locating, appraising and synthesizing evidence (e.g. Tranfield et al., 2003; Pittaway et al., 2004; Becheikh et al., 2006).

A SLR was used, because this method allowed the sample of publications to be examined in a systematic way. The use of the SLR method was guided by the desire to improve the knowledge on the analysed topics in the academic field. The importance of this research method is that it becomes possible to increase the knowledge already present in the literature and so to achieve a good in-depth study, through a careful, formalized and replicable research pattern (e.g. Tranfield et al., 2003; Booth et al., 2012; Hou and Neely, 2013).

This investigation policy has been used in the social sciences and in the managerial field by various authors (e.g. David & Han, 2004; Thorpe et al., 2005).

The five stages of this analysis that characterize the SLR method are summarized in the following table; these phases correspond to the different moments of inquiry in each stage of research (Thorpe et al., 2005).

Phase 1	Definition of search and selection key in the database.
Phase 2	Search of articles (papers) in the database.
Phase 3	Reading and selection of titles and abstracts.
Phase 4	Reading and selection of articles (papers).
Phase 5	Analysis of articles (papers) for the purpose of research.

Table 1. *Five phases of a systematic literature review (Thorpe et al., 2005)*

In order to classify and analyse the empirical literature on open innovation we created a taxonomy consisting of two variables: OIS and OIP. The main purpose is to identify the frequencies of sources and practices occurred in empirical studies.

The findings presented in this paper are thus part of a broader study where systematic searches of the OI literature have been carried out in several sequential studies covering a time period from 2003 up until 2017. As suggested by Schroll and Mild (2012), we restricted the timeframe to articles published from 2003 onwards, as the term “open innovation” was originally coined in 2003. The searches were made in three selected databases, presented in Table 1, namely ISI Web of Knowledge, google scholar and Scopus. As seen in Table 2, only papers explicitly using the term open innovation were included in the search range. Naturally, there are publications closely related to OI without using the term, but this lies outside the scope. The search was also limited to social sciences publications. Only peer-reviewed material was included in the analysis, and thus material, such as pure interviews, industry reports and book reviews, was excluded. We chose to also exclude conference papers, as some conferences are not peer-reviewed, and we did not have the capacity to make a distinction among conferences that are peer-reviewed and those that are not. In total, 486 publications in English were found. Secondly, we analysed the abstracts in order to verify whether the article had an empirical nature, or was simply citing other empirical articles. In the latter case, we discarded the article from our research. Whenever the abstracts were too ambiguous to understand the subject of the respective articles, we extended the preliminary analysis of the abstract to the entire article in order to avoid undesirable exclusions.

Database	Search terms and Limitations
ISI Web of Knowledge	The search term open innovation in title, keywords or abstract was used in order to find relevant articles. Moreover, the search was restricted to Social Sciences Citation Index (SSCI).
Scopus	The search term open innovation in title, keywords or abstract was used in this database too in order to find relevant articles. Moreover, the search was restricted to “social sciences” only.
Google Scholar	The search term open innovation in title, keywords or abstract was used in this database too in order to find relevant articles. Moreover, the search was restricted to “social sciences” only.

Table 2. *Search information*

Then, we have read the abstract trying to understand whether the paper addressed in some way the issue concerning the measurement of openness with particular regard to the acquisition of knowledge or technology. Therefore, the transfer of knowledge/technology (outbound open innovation) is not

considered in our study. It is noteworthy to note that we decided to include just quantitative papers because they allow an easy identification of sources and practices assessed.

This procedure led us to 42 papers published between 2006 and 2017.

RESULTS

This section sets out a summary of the SLR. Specifically, it presents and discusses the results in relation to the academic journals and aspects assessed. Moreover, our objective was to identify OIS and OIP used in the empirical research.

The articles included in our literature review were published by 22 different journals. Among them, the most relevant journals have been *Technovation* (6 occurrences), *Creativity and Innovation Management* (4), *Journal of Small Business Management* (3) and *International Journal of Technology Management* (3). All other journals published two or one empirical studies included in our sample.

Journals	No. of papers
Technovation	6
Creativity and Innovation Management	4
Journal of small business management	3
International Journal of Technology Management	3
International Journal of Innovation Management	2
R&D Management	2
Technology Analysis & Strategic Management	2
Journal of Product Innovation Management	2
European Journal of Innovation Management	2
Research Policy	2
Strategic Management Journal	1
Measuring Business Excellence	1
Journal on Chain and Network Science	1
International Journal of Innovation and Technology Management	1
Research-Technology Management	1
Industrial Marketing Management	1
Small Business Economics	1
Technological Forecasting and Social Change	1
Journal of the Knowledge Economy	1
Journal of Knowledge Management	1
European Journal of International Management	1
Journal of Innovation Management	1

Table 3. *Journals identified*

The SLR analysis led us to identify OIS and OIP used by empirical studies approached by quantitative methods. As figure 1 shows, we found 19 OIS used by empirical studies some of which are more used (universities, suppliers, clients/customers, competitors, commercial laboratories/R&D enterprises, private research institutes, consultants, and government research organisations).

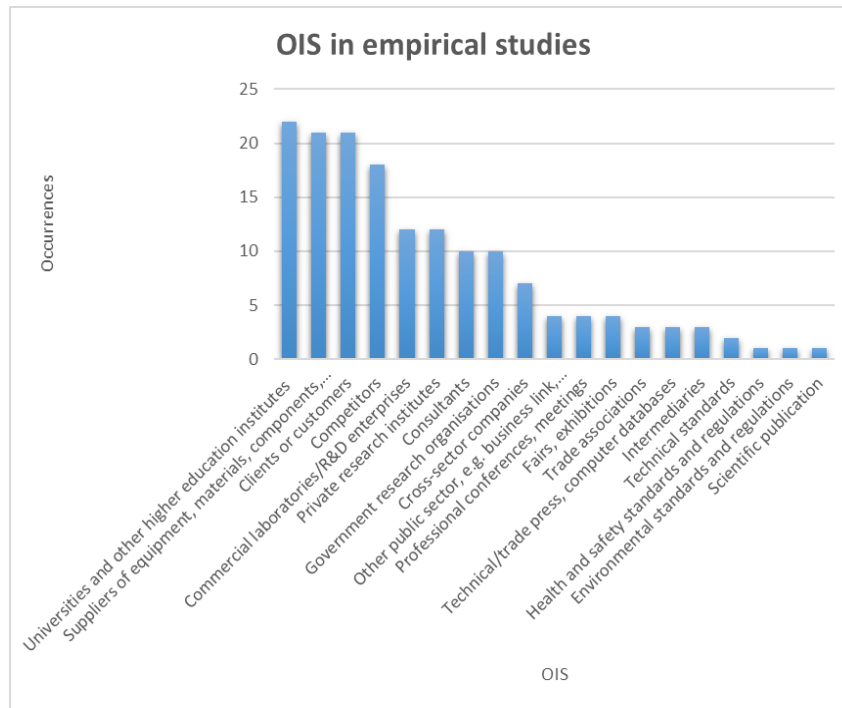


Figure 1. *OIS used by empirical studies*

Then, we identified studies using OIP in empirical settings. Figure 2 shows the OIP used and the occurrences. As the table shows, licensing-in the most frequent practices used, followed by partnering/R&D alliances/Co-patent, customer engagement, equity investment/M&A/JV, outsourcing R&D.

Overall, the findings suggest that studies are inconsistent in using OIS and OIP in empirical studies given the frequencies found. This means that, although open innovation has increasingly obtained greater attention among scholars, the measurement of openness did not find consistent framework of analysis. Studies agree that one of the open innovation pillars regards the acquisition of relevant external knowledge, resources and technologies to incorporate that developed internally with the final goal of achieve the renewal of products, processes and services. However, as indicated in this study, scholars have found difficulties in proposing model describing “where” and “how” acquire these external resources.

CONCLUSIONS

In this paper, we have tried to provide a comprehensive framework of OIS and OIP to describe “where” and “how” a firms can acquire external knowledge and technologies following an open innovation logic. Accordingly, the main contribution of this paper is that we offer a wide picture of OIS and OIP available for firms that want to be open and a guideline for future studies on OIS and OIP. It therefore extends prior studies that have tried to measure openness and assess its antecedents and outcomes (Laursen and Salter, 2006; van de Vrande et al., 2009; Pardia et al., 2012; Berchicci, 2013; Spithoven et al., 2013). Future studies may use this framework to develop quantitative studies on both OIS and OIP.

Managerially speaking, knowledge is the key resource for innovative firms, therefore managers should try to understand what type of knowledge they require, and develop an open innovation strategy accordingly. Among the OIS identified, some of them provide scientific knowledge (universities, commercial laboratories/R&D enterprises; private research institutes, government research organisations, scientific publication), while some of them provide relevant knowledge about the market (suppliers, customers, competitors, consultants, cross-sector companies, business link, professional conferences, fairs and exhibitions, trade associations, intermediaries). We finally propose that knowledge can be acquired through 16 different practices, each of which entails different advantages and challenges. Future studies could address these aspects.

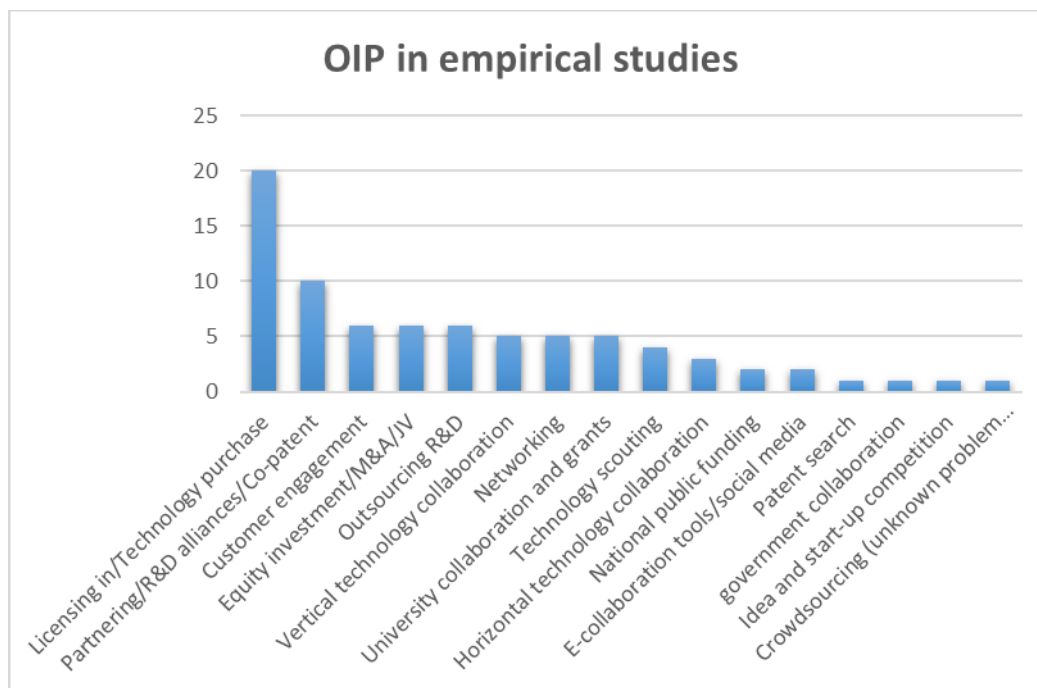


Figure 2. *OIP used by empirical studies*

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THE INFLUENCE OF CSR IN JOB SATISFACTION THROUGH INTERNAL SERVICE QUALITY: AN APPROACH IN THE THIRD SECTOR

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ABSTRACT

Despite the recognized importance of corporate social responsibility (CSR) in organizations, research concerning the influence of CSR on employees' job satisfaction through of internal service quality in third sector organization is clearly understudied. This study explores the influence of CSR in job satisfaction through internal service quality in third sector organizations. Data were collected in a Northern third sector organizations, through a self-administered questionnaire applied to employees; a structural equation modelling methodology was applied to data collected from 103 employees, through the use of the PLS-SEM approach. Overall, the results show that employees' perceptions of corporate CSR initiatives are strongly associated with job satisfaction and internal services quality, being the association between CSR and satisfaction more pronounced when mediated by internal services quality. This research reported in is undoubtedly an added value for understanding perceptions of CSR in these organizations and its influence in job satisfaction and internal service quality.

Keywords: Corporate social responsibility; internal service quality; job satisfaction; third sector.

INTRODUCTION

Social responsibility has become an increasingly important concept, integrated into the debate on competitiveness and sustainability in the context of globalization, and is even used to defend common values and increase the sense of solidarity and cohesion (Vasilescu *et al.*, 2010). Thus, Corporate Social Responsibility (CSR) has become a recurring theme within organizations, and it has been verified that, over the last decades, politicians have recognized that the activities of organizations have obligations to society in general (Hudson *et al.*, 2017). In this way, organizations use CSR as a strategy that adds value,

improves the quality of services and contributes to the satisfaction of professionals (Hudson *et al.*, 2017).

It should be stressed that the quality of the service for the external customer is highly dependent on the internal service quality (*e.g.*, Bouranta *et al.*, 2009), which is why the poor quality of the internal service is more likely to have a negative impact on the quality of the services rendered to external clients (McDermott and Emerson, 1991) and that the quality of the external customer service can be guaranteed only after internal performance has been optimized (Boshoff and Mels, 1995). It should be noted that the interaction between CSR and quality is proposed as synergistic, since both are focal and offer value propositions exclusive to customers. Thus, quality primarily meets the functional needs of customers, while CSR meets customers' psychosocial needs through social or environmental enhancement (Yuen *et al.*, 2018).

Job satisfaction is an essential indicator of organizational performance and the quality of care provided in the third sector. Thus, quality management promotes the involvement of professionals with the organization, through the recognition of their importance for the performance and productivity of the same, which leads to greater professional satisfaction. On the other hand, professional satisfaction positively influences the identification with the institution and vice versa. This is directly related to attitudes, behaviors and other surrounding variables of the institution's environment, such as acceptance of the goals and values of the organization, a greater willingness to work and the desire to remain in the organization (Riketta, 2005). Thus, the higher the professional satisfaction, the higher the level of quality in the organizations and the lower the turnover (Gordon, 2017). It should be noted that the concepts of CSR and quality produce replicative effects on job satisfaction, since they appeal to the social identity or status of employees based on their self-image and self-esteem (Greening and Turban, 2000).

The growing number of academic studies on the relationship between CSR activities and employee attitudes and behaviours generally suggests that corporate social and environmental programs are well received (*e.g.*, Kim *et al.*, 2010). Indeed, CSR appears to influence several employee attitudes and behaviours, including job satisfaction (*e.g.*, De Roeck *et al.*, 2014, 2016), directly, and through internal service quality (*e.g.*, Sharma *et al.*, 2016). This study explores the influence of CSR in job satisfaction through internal service quality in 3rd Sector organizations. Considering this objective, and the serious lack of research regarding employees in 3rd Sector organizations, this research is undoubtedly an added value for understanding perceptions of CSR in these organizations and its influence in job satisfaction and internal service quality.

After this introduction, we present a brief literature review. Section three describes the methodology used. In the fourth section, the results are presented, followed by the final sections' discussion of findings and this study's limitations and implications.

LITERATURE REVIEW

Corporate social responsibility

Social responsibility (SR) expresses a situation in which companies adopt a broader business vision and take responsibility for their impact on society (Carroll, 1979). Thus, Carroll (1979) suggests a model of total Corporate Social Responsibility (CSR) constituted by economic, legal, ethical and philanthropic responsibilities, with the objective of fully assuming their obligations towards society. Regarding the economic responsibility the author states that it is important that the company's performance is consistent with the maximization of gains, as well as maintaining a high level of operational efficiency, i.e. to describe the obligations for companies are productive and profitable (Maignan, 2001). At the same time, it's expected that businesses will obey the law, corresponding to legal responsibility, i.e., they refer to the framework of legal requirements that companies must meet when practicing economic duties (Carroll, 1979). Finally, as far as ethical and philanthropic responsibilities are concerned, it's expected that companies go beyond mere compliance with the law and the economic concept of generating profits, i.e. that companies act according to the expectations of ethical standards, avoiding or minimizing damages to stakeholders, and being a good corporate citizen, contributing to the community and improving the quality of life of its stakeholders (Carroll 1991; Schwartz and Carroll, 2003; Maignan 2001). In this sense, and according to the Commission of the European Communities (2001) CSR, refers essentially a concept whereby companies decide voluntarily to contribute to a fairer society and a cleaner environment, and in socially responsible practices companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders. In 2008, Valentine and Fleischman presented a CSR concept based on Carroll's (1979) studies, defining CSR as the economic, legal, ethical, and discretionary expectations that society has towards the organizations in a given time.

In this sequence, organizations are increasingly promoting social responsibility strategies as a reaction to various social, environmental and economic pressures (Dey and Teasdale, 2016). In this way, the environmental dimension deals with challenges such as global warming, scarcity of resources, air and water pollution, and the socio-economic dimension include poor working conditions and violations of human rights, among others (Commission of the European Communities, 2001, Idowu *et al.*, 2015; Reverte *et al.*, 2016).

In short, being socially responsible is not restricted to fulfilling all legal obligations, it means going further, through greater investment in human capital, in the environment and in relationships with stakeholders and local communities. The primary objective is no longer to maximize value and benefits for the company's shareholders, but rather to generate value and benefits for all stakeholders (Carrol 1991, Commission of the European Communities, 2001). And if this is true for organizations in general, it is even more for social sector organizations (or third sector).

Internal service quality

Although the quality of the tangible goods has been described and evaluated by marketers, the quality of the services, namely in the way consumers perceive the services rendered, is discussed until the middle of the 1980s in only a limited range of studies (e.g., Grönroos, 1982; Lewis and Booms, 1983). Being a more recent concept the quality of service has nevertheless played a growing role over the following decades, largely due to the dynamic nature of the business, having become an established concept (Shahin, 2006). Considering the specificity of the services due to their intangibility, companies may find it difficult to understand how consumers perceive their services and evaluate their quality (Zeithaml, 1981). It should be noted that services, especially those with high human intervention, are heterogeneous, with their performance usually ranging from person to person and from day to day (Parasuraman *et al.*, 1985). The consistency of the behavior of service personnel (i.e., uniform quality) is difficult to guarantee because what the company intends to deliver may be entirely different from what the consumer receives (Booms and Bitner, 1981).

It should be noted that according to Nagel and Cilliers (1990), clients can be external or internal. External customers are not members of the company that produces the product or service although they are influenced by the product. Interns are members of the company, there are innumerable situations in which organic units and their collaborators supply products to each other, these recipients being called internal clients, although they are not customers in the real sense (Stauss, 1995; Zeithaml and Bitner, 1996). Thus, the concept of internal services emerged from the perspective of internal marketing, which views employees within the company as internal customers and suggests that meeting their needs would help organizations achieve their goals (Gronroos, 1981). In this sense, there are several studies (e.g., Nazeer *et al.*, 2014; Cullen *et al.*, 2014; Sharma *et al.*, 2016) which point out that organizations should emphasize not only external customer satisfaction but also internal customer satisfaction, thus boosting the company's profit through the impact on employees' attitudes (satisfaction) and their behaviors (retention and productivity). In fact, studies show that the quality of internal service has a direct impact on employees' attitudes and behaviors (Kang *et al.*, 2002; Prentice, 2018), and there is a consensus that the perception of customers or employees is paramount and needs

to be analyzed and measured (Gunawardane, 2011; Hirmukhe, 2012). Considering the above, we formulate the following hypotheses of investigation:

H₁: The general perception of CSR directly influences the perception of internal service quality.

Job Satisfaction

Research on job satisfaction is relevant for organizations in general as job satisfaction is an important predictor of employee attitudes and job stability (Spector, 1997) and has been studied by researchers for over a hundred years (*e.g.*, Taylor, 1911; Maslow, 1954; Herzberg *et al.*, 1957; Locke, 1976; Yee *et al.*, 2015; Sharma *et al.*, 2016). Spector (1997) defined job satisfaction as the extent to which people like their jobs. It should be noted that there are several conceptions about job satisfaction, namely, job satisfaction as an emotional state, which according to Locke (1969) is defined as a pleasant, positive or pleasure emotional state, a result of the evaluation that the individual does his work or the experiences provided by him, as well as the perception that the collaborator has about how his job satisfies or allows to satisfy its most important values; job satisfaction as an attitude, where Robins (2007) presents satisfaction at work as the general attitude of a person in relation to the work he performs, where the attitude is the willingness to act and take a stand in certain situations, arising from concepts, information and emotions that result in a favorable or unfavorable response to a person, group, idea, event or object; and satisfaction in work as motivation, which can be understood as an action oriented towards the satisfaction of a need, being to a state of well-being obtained with the satisfaction of that need (Herzberg *et al.*, 1959).

It should be pointed out that, more and more, the managers of the organizations seek to check the adequacy of their management policies and practices, using the analysis of job satisfaction indexes. Thus, satisfaction at work results from the frequent evaluation that each individual makes, instantaneously and empirically of the results obtained, in relation to the degree of fulfillment of their needs, their expectations and professional preferences, that is, the individual perceives or feels that what they received meets what he hoped to achieve (Cavanagh, 1992). In this way, job satisfaction is an attitude (affective, cognitive and behavioral), an emotion, a feeling that can be verbalized and measured (Graça, 2000) and that can be influenced by different factors, such as CSR and quality of internal services. Considering the above, we formulate the following hypotheses of investigation:

H₂: The general perception of CSR directly influences job satisfaction

H₃: Quality of internal service directly influences job satisfaction

H₄: The general perception of CSR influences job satisfaction mediated by internal service quality

Third sector

As a rule, the simplest way to create borders between the social, political and economic organization of a country is by defining three broad sectors of activity: the public sector, the private business sector and the third sector. However, the definition encompassing the sector of non-profit organizations and the entire area of social response with initiative in civil society is generally referred to as the third sector. This name, usually used in a generic way to circumscribe the same group of organizations, is not, however, consensual, either in Portugal or internationally. There is a proliferation of names, as well as definitions, about this group of organizations and variations on parts of it, which does not contribute to the affirmation of the third sector itself as a distinct, parallel sector of equal social and political importance, along with consolidated ones first and second sectors (Franco *et al.*, 2005).

The academic debate on the questions of the name, definition and frontiers of this problematic is very enriching (Maier *et al.*, 2016) but there are as many options, names and possible meanings as, for example, non-profit sector, non-profit sector, economy social, solidarity economy, non-governmental organizations or civil society organizations, we will adopt the generic name of third sector. This option is related to the adherence of the concept to the reality of Portuguese society, so as to encompass organizations that are not state or market. The attempt is to encompass the entire social area, including the Private Institutions of Social Solidarity, the confectionary organizations that confuse themselves with the founding of Portugal as Parents (called Misericórdias and without possible translation into other languages) and cooperatives, even at the risk of not being consensual, or we are transforming the third sector into a "melting pot".

Third sector organizations are not companies given their mission in the areas of culture, education, research, leisure, social support, philanthropic advocacy, environmental advocacy, among many other possible. It should be noted that although they may be of an entrepreneurial nature and profit-making is possible, in fact, these organizations can only reinvest their profits in the activity, and it is not possible to divide their profits by associates (Maier *et al.*, 2016).

These third sector organizations, however, are in a situation of competition for funding, which can lead strategically to the development of profitable activities, in parallel with nonprofit activities related to the mission, serving the profits to finance all the activities of the mission. There is, therefore, a business side within the vast majority of organizations in the third sector, which leads us to apply the principles of Corporate Social Responsibility to this typology of organizations. More specifically, the quality of service provided and employee satisfaction become strategically important areas, not only because of the need for these organizations to have a mission that responds to problems that are not solved by the state or the market, but because their mission (Saeidi *et al.*, 2015, Gupta, 2017). In this

context, it is important to note that there is a need for a better understanding of the quality of the internal service.

Conceptual research model

Based on the theoretical discussion and the constructs derived in the previous section, hypotheses were drawn from the model in Figure 1.

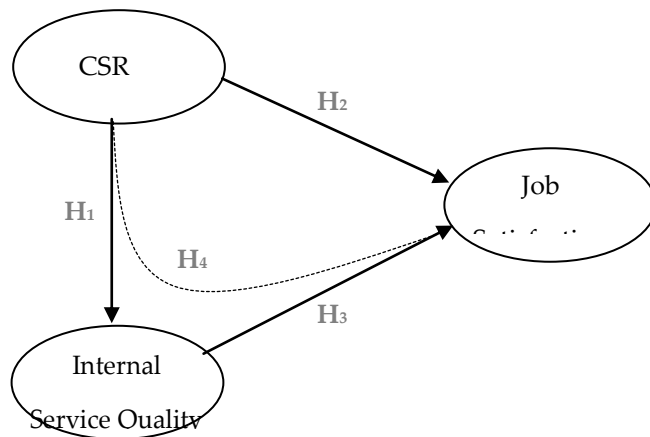


Figure 1 – Conceptual Research Model

METHODOLOGY

This study sought to identify and explore the possible relationships between corporate social responsibility, quality services and job satisfaction of the workers of the third sector. This quantitative and empirical study collected primary data through a questionnaire distributed to workers of 3rd sector organizations in northern Portugal in 2018. Data collection used a sample intentionally.

The questions used in the questionnaire were translated and adapted from instruments used in several relevant studies:

Employees' perception of CSR activities was assessed with 12 items measured through a seven-point Likert scale (ranging from 1 "strongly disagree" to 7 "strongly agree"), adapted from the studies conducted by Turker (2009), Maignan and Ferrell (2000) and Glavas and Kelly (2014).

Internal services quality was assessed with 16 items measured through a seven-point Likert scale (ranging from 1 "strongly disagree" to 7 "strongly agree"), adapted from the studies conducted by Pereira (2014), El-Jardali *et al.* (2008) and Shortell *et al.* (1995).

Job satisfaction was assessed through a 5-item instrument previously used by other studies such as Bacharach (1983), and Conley *et al.* (1989), measured through a seven-point Likert scale (ranging from 1 "very dissatisfied" to 7 "very satisfied").

In addition, some sociodemographic control variables were also introduced.

The sample consisted of 103 workers from 5 nonprofit organizations from northern of Portugal (Vila Real district), mainly women (87%), aged between 22 and 59 years old. Regarding their education, 38.8% of respondents have higher education qualifications, 25.24% have secondary education and 26.21% have third cycle of obligatory education. It is important to note that 24.27% of the respondents are social workers.

Data analysis was conducted through structural equations modelling, applying a PLS-SEM approach to test the proposed research model.

RESULTS

Results of analysis

In the analysis of the measurement model we began by presenting some of the psychometric properties of the 3 constructs of the proposed model, i.e., Corporate Social Responsibility (12 items), Job Satisfaction (5 items) and Internal Service Quality (16 items) as well as some of the definitions adopted.

To estimate the proposed model we used PLS-SEM (Lohmöller, 1989; Wold, 1982). Among the reasons of using PLS-SEM are its fewer demands on the underlying data distribution and sample size compared to covariance-based structural equation modeling (CB-SEM) which has constraints regarding the distributional properties (multivariate normality), measurement level, sample size, model complexity, identification, and factor indeterminacy (Hair *et al.*, 2011; Hair *et al.*, 2012). The software used was SmartPLS 3 (Ringle *et al.*, 2015).

The adopted PLS algorithm weighting scheme was the Path Weighting Scheme. The initial values for the outer model relationships was 1.0, the data was standardized with “Mean 0, Var 1”, a maximum number of iterations of 300 and abort *criterium* 1.0E-7.

The PLS-SEM model evaluation relies on bootstrapping, a form of resampling procedure. The bootstrapping settings used were cases equal to the number of our sample (103), with 5000 replications and no sign changes.

RESULTS PRESENTATION AND ANALYSIS

Outer Model (measurement model)

For the outer model evaluation of the latent variables we followed the recommendations stated in Hair *et al.* (2012), Hair *et al.* (2013) and Gefen *et al.* (2011), evaluating indicator reliability (Hulland, 1999), internal consistency reliability (Bagozzi and Yi, 1988) and convergent validity (Bagozzi and Yi, 1988).

To determine reliability we present 2 measures (Table 1), Composite Reliability (CR) and *Cronbachs Alpha* (α) with *Cronbach* α values ranging from 0.926 to 0.976 and CR values ranging from 0.945 to 0.978 (>0.70) assuring internal consistency reliability.

Validity is the property of the measuring instrument that evaluates whether it measures the construct to be evaluated. For each latent variables in the model, the factorial validity, the convergent validity and the discriminating validity were evaluated.

The factorial validity occurs when the specification of the items in a specific construct is correct (i.e., items assess the factor to be measured) and is usually evaluated through the standardized factorial weights. It is usually assumed in PLS-SEM analyses that, if standardized factorial values of all items are greater than or equal to 0.7, the factor has factorial validity (Hair *et al.*, 2011). Excepting 11 items in the “internal service quality” construct that presented slightly lower factor weights, all items of the various constructs had factorial weights greater than 0.7, and thus factorial validity was verified.

Convergent validity, which can be evaluated through the Average Extracted Variance (AVE), occurs when items reflecting a factor strongly saturate this factor, meaning that the behaviour of these items is essentially explained by this factor (Fornell and Larcker, 1981). AVE values greater than 0.5 are indicative of adequate convergent validity. Table 1 shows that Average Variance Extracted (AVE), ranged from 0.773 to 0.889 (> 0.50) assuring convergent validity (Bagozzi and Yi, 1988).

Table 1 – Reliability (CR and Cronbach α) and convergent validity (AVE) of the model’s constructs

Construct	CR	Cronbachs α	AVE
Corporate Social Responsibility (CSR)	0.978	0.976	0.791
Internal Service Quality (ISQ)	0.945	0.926	0.773
Job Satisfaction (JB)	0.976	0.969	0.889

We can conclude that all the constructs have good psychometric properties either in terms of reliability or validity.

Inner Model (structural model)

PLS-SEM does not report any kind of fit indices like CFI or RMSEA used in CB-SEM. The evaluation of PLS model is based on prediction oriented measures that are non-parametric (Chin, 1998). The PLS structural model is mainly evaluated by R^2 of endogenous latent variable (Chin, 1998), effect size f^2 (Cohen, 1988) and the Stone-Geisser Q^2 test for predictive relevance (Stone, 1974; Geiser, 1974). The predictive power of the model was analyzed using R^2 . Using the PLS Algorithm function in SmartPLS 3, we computed the R^2 of the endogenous latent variables in the model. The R^2 values ranges from 74.1% in ‘Satisfaction’ construct to 78.5% in the ‘ISQ’ construct all of which are greater than the acceptable threshold of 10% (Falk and Miller, 1992).

The effect size (f^2) complements R^2 and considers the relative impact of a particular exogenous latent variable on an endogenous latent variable by means of changes in the R^2 (Cohen, 1988), was measured using the formula $f^2 = (R^2_{\text{included}} - R^2_{\text{excluded}}) / (1 - R^2_{\text{included}})$. Cohen (2008) suggests f^2 values of 0.02, 0.15 and 0.35 for small, medium and large effect sizes of the predictive variables. In our study, we found a large effect size of CSR on ISQ ($f^2 = 3.661$), a small effect size of CSR on JS ($f^2 = 0.117$) and a medium effect size of ISQ on JS ($f^2 = 0.215$). The effect sizes of the latent variables at the structural level can be seen on table 2.

Table 2 – Effect sizes of the latent variables

Paths	R ²	f ²	f ² effect
Corporate Social Responsibility → Job Satisfaction	0.741	0.117	Small
Corporate Social Responsibility → Internal Services Quality	0.785	3.661	Large
Internal Services Quality → Job Satisfaction	0.741	0.215	Medium

We assessed the predictive relevance of the 'JS' and 'ISQ' endogenous latent variables using Stone-Geisser's Q^2 statistic (Geisser, 1974; Stone, 1974). By following the blindfolding re-sampling approach (omission distance = 7), the predictive power of the model was examined by means of Stone-Geisser's Q^2 , cross-validated index (Tenenhaus *et al.*, 2005; Wold, 1975). The Q^2 value of 'JS' ($Q^2=0.611$) and 'ISQ' ($Q^2=0.568$) was greater than zero, suggesting the predictive relevance of the model (Chin, 1998).

Hypothesis testing

Hypotheses were tested examining the significance of the path coefficient estimates on the three paths in the *inner* model. In order to produce more reasonable standard error estimates we used a *bootstrap* technique (Tenenhaus *et al.*, 2005). Following Hair *et al.* (2011), we set 5000 re-sampling with replacement from the number of *bootstrap* cases equal to the original number of 103 observations to generate standard errors and obtain *t*-statistics. Figure 2 refers to the output of the *SmartPLS* analysis, highlighting R^2 values for each latent endogenous variables, as well as regression coefficients of the *inner* model and the factor weights of each of the items belonging to the constructs of the *outer* model.

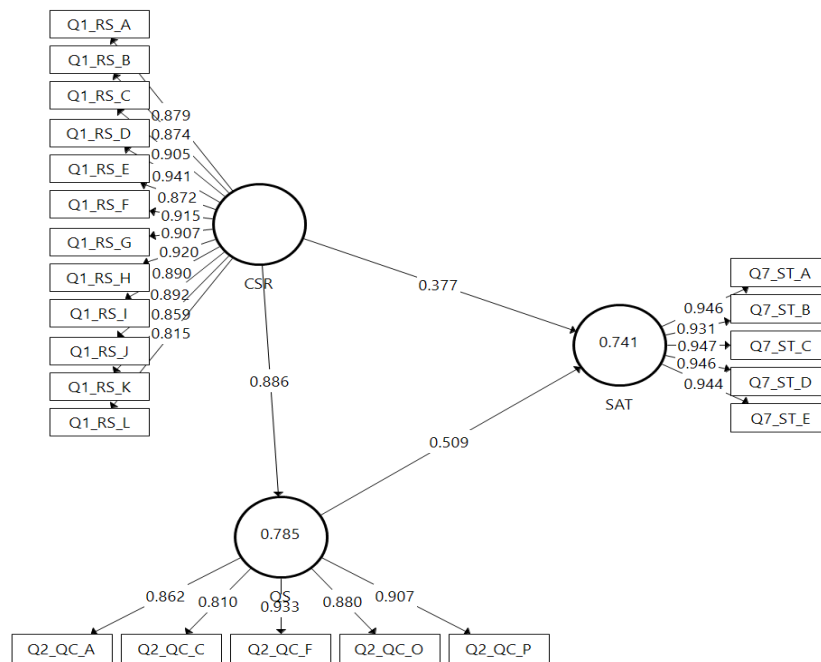


Figure 2 – SmartPLS output

As can be seen from the evaluation of the structural model (table 3) all the trajectories are significant. Note that CSR has a bigger indirect effect on JB ($\beta = 0.451$) than a direct effect on JB ($\beta = 0.377$), having a total effect on JB of $\beta = 0.828$.

Table 3 – Assessment of path analysis

Hypothesis	β	t-statistics	p	Supported hypothesis?
H(1): CSR → Internal Services Quality (ISQ)	0.886	33.930	<0.001	Yes
H(2): CSR → Job Satisfaction	0.377	3.101	0.002	Yes
H(3): IQS → Job Satisfaction	0.509	4.197	<0.001	Yes
H(4): CSR → Job Satisfaction (mediated by IQS)	0.451	4.230	<0.001	Yes

CONCLUSIONS

The key finding of the current study is that employees' perception about organizations' CSR initiatives is positively related to job satisfaction directly and through internal services quality.

Findings reached in this research support previous studies suggesting that CSR is strongly associated with job satisfaction (*e.g.*, Karanika-Murray *et al.*, 2015; Tamm *et al.*, 2010), and internal services quality (*e.g.*, Yuen *et al.*, 2018; Santos *et al.*, 2017; Berens, Van Riel and Van Rekom, 2007). Because this study has been conducted in a 3rd sector organizations focused on the continuous development of CSR-based initiatives, where employees generally feel that the main processes of their organization should be for the improvement of society, CSR activities become important for how these organizations behave with

its employees and with society taking in attention the internal services quality and job satisfaction. Such context, may have fostered such influence of RSC on the variables under study.

By combining the dimensions approached in this research (focused on staff), our model provides guidance on how 3rd sector organizations should project their CSR activities to maximize the job satisfaction of employees and internal services quality - and ultimately the returns from their CSR investments. Specifically, our findings have potentially important implications for the integration of CSR and human resources strategies in 3rd sector organization, as well as for CSR communication strategies. Undoubtedly, results confirm that organizational investments in social and environmental issues do improve employees' job satisfaction and internal services quality. We therefore encourage human resources departments to actively create and promote environments that incorporate CSR issues into all aspects of working life, which will increase the potential return on CSR activities through job satisfaction and internal services quality. In particular, elements of CSR should increasingly appear in various processes, such as recruitment, career and talent management, and incentives.

Obviously, we recognize that results are restricted to a specific geographic area and a specific country involving only 5 organizations of the 3rd sector, and thus findings should be interpreted cautiously when extended to different contexts. Moreover, data collection was based on a self-administered questionnaire, and cross-sectional in nature. Thus, although our research do provide valuable insights into the influence of CSR in job satisfaction and internal services quality, future studies across different contexts in these organizations, Portuguese and abroad, are strongly recommended, in search for further efforts towards a generalizable framework.

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I AM A RESPONSIBLE LEADER!

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ABSTRACT

Purpose: "I am a responsible leader" was answered by one respondent when asked who is a responsible leader. The aims of the present study are to determine first if there is a link between responsible leadership and CSR in Luxembourg, and second Luxembourg's specifics in the field of CSR.

Design: This is a qualitative study. 64 semi-structured interviews were conducted from January to August 2017 using four culturally different samples, namely: (1) Luxembourgers with Luxembourgish Nationality (Lux.Nat.), (2) foreigners who reside in Luxembourg (Lux.Foreigner), (3) cross-borderers, and (4) the rest of the world (World).

Findings: Responses from all four samples were similar on the one hand, and quite contradictory on the other. Three groups were formed: 1) Euphoric respondents who said it is the authenticity of the leader and his modelling role in lived CSR. 2) Second, moderate respondents. 3) Third, critical respondents, denying any link and claiming for change and innovation accusing the high Uncertainty Avoidance Index. In their opinion, there is an urgent need for managers to learn responsible leadership and CSR.

Research implications: This article contributes to the discussion on change and innovation in the field of leadership theory, first with particular emphasis on responsible leadership following Michael Maccoby, second on multilingual and multicultural Luxembourg in the middle of Europe, following Geert Hofstede and Edgar Schein, and third on CSR following Thomas Maak and Nicole Pless.

Originality: This study is the combination of research about responsible leadership and CSR in Luxembourg in connection with Hofstede's cultural dimensions: high Long-Term Orientation (LTO), high Uncertainty Avoidance (UA), and high Collectivism (low Individualism).

Keywords: Responsible leadership, Corporate Social Responsibility (CSR), Cross-cultural management, International business, Hofstede, Change and Innovation, Luxembourg

INTRODUCTION

"I am a responsible leader" was answered by one respondent when asked who is a responsible leader. The purpose of this qualitative research is to explore if there is a link between responsible leadership and CSR in Luxembourg. 64 semi-structured interviews were performed among four culturally different samples, namely: (1) Luxembourgers with Luxembourgish Nationality (Lux.Nat.), (2) foreigners who reside in Luxembourg (Lux.Foreigner), (3) people from Germany, France, and Belgium who commute daily to work in Luxembourg (cross-borderers), and (4) the rest of the world (World). Convenience sampling was used. Respondents were asked: How do you link 'responsible leadership' and CSR in Luxembourg?

This research contributes to the existing knowledge by developing the theory of need for change and innovation. The author refines three existing theories, namely, Responsible Leadership (Maccoby, 2011), CSR (Maak, 2017; Maak & Pless, 2006) and Culture (Hofstede, Hofstede, & Minkov 2010), where culture is used as a moderator in the relationship between Responsible Leadership and CSR (Mecalf, 2010; Du, Swaen, Lindgreen, & Sen, 2013). Why Luxembourg? Because it provides the author with a steady cultural environment where other sub-cultures might vary in their behaviour (France, Germany, Belgium, Portugal, Italy, Spain...). This research is significant and strongly needed as a reinforcement in the claim for change and innovation in the field of responsible leadership theories and CSR theories.

After this introduction, the paper will first briefly review the extant literature on Responsible Leadership and CSR, describe Luxembourg's linguistic and cultural peculiarities and offer a proposition. Paragraph 2 will describe the applied method: semi-structured interviews. Paragraph 3 will present the results from the four culturally different samples of respondents, and excerpts of some interviews. A summarizing table is offered for the reader's convenience. Paragraph 4 contains the conclusion, discussion, and implication, as well as research limitations and further research opportunities. References will conclude this paper.

RESPONSIBLE LEADERSHIP

"There is only one irrefutable definition of a leader: someone people follow. Therefore, leadership is a relationship between the leader and the led. Unlike management, the leadership relationship cannot be delegated or automated" (Maccoby, 2011).

Responsible leadership is defined as being "about making business decisions that, next to the interests of the shareholders, also takes into account all the other stakeholders such as workers, clients, suppliers, the environment, the community and future generations" (The Financial Times, 2015). Stükelberger and Mugambi (2007) split 'Responsible Business Leadership' into 5 aspects: 1) in

general, 2) economically, 3) socially, 4) politically and 5) environmentally. Responsible leadership has increasingly been a topic of interest in recent years, looking into topics like 'organizational culture' (Schein 2009, 2010), 'strategic intelligence' (Maccoby, 2015), 'raising performance through uplifting leadership' (Hargreaves et al., 2014), 'stakeholders' (Maak, 2007; Maak & Pless, 2006), strategic leadership (Elenkov, D.S., Judge, W., & Wright, P., 2005), supportive leadership (Banai & Reisel, 2007), different types of leadership approaches (Northouse, 2012), and 'narcissistic leaders: who succeeds and who fails' (Maccoby, 2007). Northouse (2012) addresses the subject through different types of approaches: the trait approach, skills approach, style approach, situational approach, contingency theory, path-goal theory, leader-member exchange theory, transformational leadership, servant leadership, authentic leadership, team leadership, psychodynamic approach, women and leadership, culture and leadership, and leadership ethics. Murray (2010) asks: "What makes a great leader?" The roles of leadership styles in connection with CSR was the centre of interest for several researchers (Mecalf, 2010; Du et al., 2013): authentic leadership, integrity in leadership, transformational leadership, autocratic leadership.

CORPORATE SOCIAL RESPONSIBILITY CSR

CSR is defined as "the broad array of strategies and operating practices that a company develops in its efforts to deal with and create relationships with its numerous stakeholders and the natural environment (Waddock, 2004, p. 10, in Du et al., 2013).

Ethics, values, responsibility, sustainability, authenticity, involving one's history, one's relationship with others, my aspirations, my value system, acting true to oneself, acting on one's values, ... these and more are key words that Freeman and Auster (2011, pp. 15-16, 22) are conducting research on. Values decide over 'treating employees as rights-holders', 'creating value in an environmentally sustainable way, 'implementing CSR', 'becoming a good citizen in civil society', 'being a force for peace in the world', 'engaging in social entrepreneurship', and 'being an ethical or responsible leader' (Freeman & Auster, 2011, pp. 15-23).

Voegtlin, Patzer and Scherer (2012) in their literature review underline the different streams of responsible leadership and CSR, where this research mainly intends the inclusion of ethics into leadership, saying responsible means ethical leadership, or the connection between CSR and transformational leadership (Waldman et al., 2006) or with authentic leadership (Avolio & Gardner, 2005), and/or servant leadership (Greenleaf, 1977; Liden et al., 2008), and the overlap of studies in ethics, leadership and CSR. The main question is: Who is responsible for what and towards whom in an interconnected business? With this, Voegtlin, Patzer and Scherer (2012) include globalization with

responsible leadership and CSR. For Avolio and Gardner (2005) authentic leadership is a positive form of leadership.

RESPONSIBLE LEADERSHIP AND CORPORATE SOCIAL RESPONSIBILITY CSR

Maak (2007, p. 329) argues that responsible leadership ‘contributes to building social capital and ultimately to both a sustainable business and the common good’, this is because business leaders have to build ‘enduring and mutually beneficial relationships with all relevant stakeholders’ through ‘durable relational structures and ultimately stable networks of relationships’. For Maak (2007, p. 339), the responsible leader is a weaver of value networks, contributing with these social ties to a sustainable business, the common good and eventually to a sustainable future. Pless (2007, p. 438) defines: “We understand responsible leadership as a values-based and thorough ethical principles-driven relationship between leaders and stakeholders who are connected through a shared sense of meaning and purpose through which they raise one another to higher levels of motivation and commitment for achieving sustainable values creation and social change.” She defines “a responsible leader as a person who reconciles the idea of effectiveness with the idea of corporate responsibility by being an active citizen and promoting active citizenship inside and outside the organization” (Pless, 2007, p. 450). Responsible leaders build sustainable relationships with stakeholders, to achieve shared objectives, the common good. This includes the different streams of leadership: ethical, authentic, servant and transformational. “Sustainability is about building a society in which a proper balance is created between economic, social and ecological aims” (Szekely & Knirsch, 2005, pp. 628, 629), where “companies integrate their economic, social and environmental objectives into their business strategies and optimize the balance among all three. Thus, the flexibility to change and to engage in dialogue and partnerships with different members of society are not given to all leaders. Internal (managers, employees, workers, worker health and safety, shareholder value) and external factors (market, government, stakeholders, energy efficiency) determine sustainability within a company. Szekely and Knirsch (2005) name the critical success factors to achieve sustainability as first: leadership and vision, second: flexibility to change, third: openness, i.e. stakeholder engagement.

Pruzan and Miller (2006) address four questions in their research: What is responsibility? Can organizations be responsible? Why be responsible? What obstacles are there to being responsible? They found four different perspectives on responsible leadership and corporate responsibility: rational, humanist, holistic and spiritual based. They found six obstacles to being responsible: time, distance, internal pressures, external pressures, ego and the desire to maximize personal wealth. They ask the question “To what extent are leaders and organizations responsible for creating wealth for the

largest possible group/community/society rather than for their own personal benefit?" (Pruzan & Miller, 2006, pp. 85-87). If shareholders have a claim for wealth, intending corporation's objective is shareholder's wealth maximization, then we are looking at a new aristocracy viewpoint where the primary goal of corporations is the maximization of shareholder's wealth, just like in pre-industrial times. The corporation is considered being property of the shareholders, who can buy and sell with the only objective: profit maximization, evidently to the loss of employees – the employee is the loser in this model. Remuneration systems relying mainly on stock options reinforce this criticism. In this system, the scope of responsible leaders and responsible social companies is reduced to shareholder's wealth maximization, achieving financial goals at the loss of other goals (Pruzan & Miller, 2006). In summary, there are three streams of theories in the field of 'responsible leadership and CSR': first those who see only benefits in this combination, second those who reflect on positive and negative outcomes, and third those who criticize the negative outcomes of this combination.

LUXEMBOURG

Luxembourg is a parliamentary democracy and a constitutional monarchy, it is the only remaining Grand Duchy in the world. As of 1st of January 2017, Luxembourg's total population consisted of 590,700 inhabitants of whom 309,200 (52.34%) were Luxembourgers and 281,500 (47.66%) were foreigners (statec, 2017), these included 96,800 Portuguese, 44,300 French, 21,300 Italians, 20,000 Belgians, 13,100 Germans, 6,100 British, 4,300 Dutch, 34,400 other EU countries, 41,200 other, see <http://www.statistiques.public.lu/stat/TableViewer/tableView.aspx>. Cross-borderers are a distinguishing characteristic of Luxembourg's employment situation. Domestic employment was 418,400, comprising 176,600 cross-borders (42.21%): 88,600 from France, 43,800 from Belgium, and 44,200 from Germany. Luxembourg's motto is: '*Mir wëlle bleiwe, wat mir sin'* [*We want to remain what we are*']. Luxembourg is one of the smallest countries in Europe with a total size of 2,586 km². It is 82 km long and 57 km wide and has borders with Germany (138 km), with France (73 km), and with Belgium (148 km) (The World Factbook). The language situation is anchored deeply in the country's history (Schinzel, 2013). There are three official administrative languages: French, German, Luxembourgish (statec, 2016); Luxembourgish (Lëtzebuergesch) being the national language. The public education system is tri-lingual: the instruction language in Kindergarten is Luxembourgish, being replaced by German as language of instruction in primary school and then gradually replaced by French in secondary school (Kraemer, 1995; Schinzel, 2014a; 2014b; Weber and Horner, 2008). Citizenship is only awarded to those who speak Lëtzebuergesch (Spizzo, 1995).

The author replicated Geert Hofstede's cultural dimensions study in Luxembourg and compared the findings with Hofstede's estimates. Luxembourg's specific cultural environment is characterized by

low Power Distance (PDI=29), high Uncertainty Avoidance (UAI=95), low Individualism = high Collectivism (IDV=34) (COL=66), medium Masculinity (MAS=54), high Long-Term Orientation (LTO=65), medium Indulgence versus Restraint (IVR=55), and low Monumentalism (MON=24).

In international trade, “companies must adapt their assortment, their collections, and their retail concepts. This is about “cultural distance and local adaptation: The necessity of adapting. Wherever a company comes from, great chances exist to encounter cultural differences....” Feldmann (2016, pp. 14-15)

Table 1 (Schinzel, 2017a) shows Hofstede’s (2001) and Hofstede et al.’s (2010) cultural dimensions of Lux.Nat. and Lux.All., Hofstede’s estimates for Luxembourg, his data for France, Germany, the UK, Belgium FR, Belgium NL, Italy, the Netherlands, China, the USA, and Japan (on a scale from 1-100, 1 being the lowest and 100 the highest score), where the cultural differences become clear.

Table 1 Cultural Comparisons

	The author’s Lux.Nat.	The author’s Lux.All.	Hofstede’s estimates on Luxbg	Hofstede’s France	Hofstede’s Germany	UK	Belgium FR	Belgium NL	Italy	NL	China	USA	Ja
PDI	29	36	40	68	35	35	68	61	50	38	80	40	5
UAI	95	97	70	86	65	35	93	97	75	53	30	46	92
IDV	34	51.5	60	71	67	89	71	78	76	80	20	91	40
MAS	54	47	50	43	66	66	60	43	70	14	66	62	93
LTO	65	69	64	63	83	51	82	82	61	67	87	26	88
IVR	55	53.5	56	48	40	69	57	57	30	68	24	68	42
MON	24	10	-	16.5	9.9	35.4	-	-	35.2	11.9	0	57.2	4

The following proposition is offered:

Luxembourg’s linguistic and cultural particularities means that any links between responsible leadership and CSR will not be homogeneous in the country’s companies. Therefore, such links will depend on the authenticity of individual leaders or groups of leaders and this, in turn, depends mainly on cultural dimensions and the leader’s value system.

METHODOLOGY

For the purpose of this qualitative study, 64 semi-structured interviews were carried out mainly between January and August 2017. Respondents were asked: 1) What is the link between Responsible Leadership and CSR in Luxembourg? and 2) What is typical for Luxembourg in the field of CSR? Respondents were from the four culturally different samples: Lux.Nat. (11), Lux.Foreigners (21), Cross-Borderers (10) and the rest of the World (22). Interviews were carried out in Luxembourgish, English, French, German, and Italian. They were in person, by phone, via skype or email exchange and lasted between 30 minutes and 2 hours. For confidentiality reasons, interviews were not taped nor recorded or filmed. In-depth notes were taken during the interviews. After the interviews, the respondents were presented the summary of the interview and their consent was asked. Interviews in

Luxembourgish, French, German, Italian or Spanish were translated into English. Main themes were elaborated from the interviews.

RESULTS

The results are shown in this paragraph. Table 2 summarizes the respondents' demographics.

Table 2 Respondents' demographics (N=64)

Respondents' profile	Classification	Number of respondents
Gender	Male	34
	Female	30
	Total	64
Age	0-24	0
	25-34	17
	35-49	18
	50-59	25
	Over 60	4
Industry sector	Tourism, Food, Petrol, Politics, Telecom, Construction	16
	Education, Human Resources	14
	Banking and Finance	12
	Law, Medicine, Journalism	10
	Civil Servants	2
Education level	A-level and professional education, undergraduates	15
	Masters and Doctorates	49
Profession	General Manager	5
	Manager HR, Communication, Training, Marketing	54
	Professor	5

In total, the 64 respondents come from 14 different countries, have 14 different nationalities and speak 14 different languages, with 4 holding double nationality: Luxembourgish + Portuguese, Dutch + German, American + Hebrew, and American + Bulgarian.

Mother tongues are: French (18), German (11), Luxembourgish (11), English (7), Italian (7), Dutch (3), Hindi (2), Portuguese (1), Hebrew (1), Bulgarian (1), and Polish (1), with 3 respondents having 2 mother tongues: Portuguese + French (1), English + French (1), French + German (1), 4 respondents speak 6 languages, 8 speak 5 languages, 18 speak 4 languages, 11 speak 3 languages, 21 speak 2 languages, and 2 respondents speak one language (English).

SUMMARY RESULTS FOR THE 2016 INTERVIEWS: "WHAT IS RESPONSIBLE LEADERSHIP IN LUXEMBOURG?"

Before showing the interview results from this study, the author wants to summarize the interview results from a previous study from 2016 (Schinzel, 2017b, p. 15-17) researching the question: What is

responsible leadership in Luxembourg. The crosses in the table show that respondents from this category, but not the other categories, mentioned this criteria.

Table 3 Interview summaries

mentioned by:	Lux. Nat.	Lux. Forgn.	Cross- Bord.	World
1) Responsible Leadership is:				
Ecological responsibility	x	x		
Social and human responsibility	x	x		
Economical/business/commercial responsibility	x	x		
Long-term (versus short-term) orientation	x	x		
The Grand Duke and the Grand Ducal Family [mentioned by Italians living in Luxembourg and by Cross-Borderers]			x	
Politicians [mentioned by Italians living in Luxembourg and by Cross-Borderers]			x	
Citizens [mentioned by Italians living in Luxembourg and by Cross-Borderers]			x	
Employing the highest standards of ethical behavior				x
Corporate Social Responsibility (CSR)				x
2) Examples for Responsible Leadership are:	Lux. Nat.	Lux. Forgn.	Cross- Bord.	World
Cactus [mentioned as irresponsible by Lux.Foreigners]	x		x	
Luxair [mentioned as irresponsible by Lux.Foreigners]	x		x	
Luxlait			x	
Goodyear			x	
SES Astra	x	x	x	
CFL Multimodal	X	X	x	
Delphi [by hiring locally but also expatriates, contributing to an ideal mixture and diversity]			x	
The current Government and Prime Minister [mentioned as irresponsible by Lux.Nat.]		x	x	
Me, I hope [mentioned as responsible only, never as irresponsible]	x	x		
My boss [mentioned as both: responsible and irresponsible]	x	x	x	
The trilingual public education system [mentioned also as irresponsible]	x			
My father			x	
Jean-Claude Juncker [mentioned also as irresponsible]			x	
The Grand Duke and the Grand Ducal Family [mentioned by Italians living in Luxembourg and by Cross-Borderers]			x	
Politicians [mentioned by Italians living in Luxembourg and by Cross-Borderers]			x	
Citizens [mentioned by Italians living in Luxembourg and by Cross-Borderers]			x	
5) Typical for Luxembourg is:	Lux. Nat.	Lux. Forgn.	Cross- Bord.	World
Multilingual	x	x	x	
Multicultural	x	x	x	
The Cross-Borderers	x	x	x	
The diversity	x	x	x	
High standard of life	x	x	x	

Rich, high GDP				x
The small size: limitations due to its small size, limited resources and small projects	x	x		
The trilingual public education system				
It's a great place to live and/or work [mentioned only by cross-borderers, not by Lux.Nat., nor by Lux.Foreigners]			x	
There are too many irresponsible leaders in Luxembourg [mentioned by Lux.Nat. as a criticism at the foreign banks and financial institutions?]	x			
Banks, financial institutions, special laws and rules	x	x	x	
Money laundering, bank secrecy (now finished)				
Bullying and harassment at work is frequent	x	x		
(Sport) Clubs, associations, teams	x	x		
Too expensive housing prices, real estate	x	x		
Tourism, beautiful nature and Luxembourg City	x	x		
Good social and medical system and health care	x	x		
Nepotism				
Everybody knows everybody (and everything)	x	x		
Quick and easy contact	x	x		
Tourism, beautiful nature and Luxembourg City	x	x		
Tolerance for the different			x	
Integration not separation			x	
The good working conditions in general, where forecasts are met by reality (not the case in my home country).			x	

“Respondents named the following attributes of responsible leadership: the three big categories: ecological, social and human, economical responsibility, followed by long-term and short-term orientation, personal capabilities, getting results, interpersonal skills, trust, ethical behavior, security, respect, fairness, reliability, doing not talking, commitment, compassion, keeping your promises, and finally corporate social responsibility.

Respondents named the following responsible leaders: the current government and Prime Minister, the Grand Duke and the Grand Ducal Family, former Prime Minister Pierre Werner, Cactus, Luxair, Goodyear, Luxlait, Delphi, SES Astra, CFL Multimodal, Gaston Vogel, Jean-Claude Juncker, Heinen in Bech Macher, “me, I hope”, my boss, my father, the trilingual public education system, Steve Jobs, Barack Obama, Pope Franziscus, Bill Gates Warren Buffet, Gian Luca Buffon, Mr. Rossmann, Gandhi, Angela Merkel, Martin Luther King, McDonalds’ leaders, the CEO of Costco, Richard Bradson from Virgin Business Group, ‘you’ or Dr Ursula Schinzel.

Respondents named the following attributes as typical for Luxembourg: multilingual, multicultural, cross-cultural management, cross-borderers, diversity, tolerance for the different, integration instead of separation, rich and highest GDP, high salaries, low taxes, banks and financial institutions, European institutions, money laundering, bank secrecy (now finished), good working conditions in general, good social and healthcare system, where forecasts meet reality, difference in legislation for the five different samples of people (Lux.Nat., Lux.Foreigners, Cross-Borderers, World, and Civil Servants), limitation due to small size and limited resources, trilingual public education system, a great place to live and/or work, (sport) clubs, associations, teams, expensive housing prices, quick and

easy contact, given that everybody knows everybody and everything, therefore nepotism, too many irresponsible leaders, beautiful nature and tourism, social events like Schueberfouer (Schinzel, 2017b, p.22)."

Respondents gave contradictory answers. Some confirmed the euphoric standpoint by Maak & Pless (2006), others were more moderate, and the third group was most critical, denying any link, even any existence of responsible leadership and/or corporate social responsibility in Luxembourg.

RESULTS FOR THE INTERVIEWS: RESPONSIBLE LEADERSHIP AND CSR IN LUXEMBOURG

In the following, the answers are divided into three groups. 1) First, those respondents who are euphoric and positive about responsible leadership and CSR in Luxembourg. 2) Second, those respondents who are more moderate. 3) Third, the critical respondents; those who criticize the current situation, denying any existence of neither responsible leadership nor CSR, expressing a call for change and innovation.

1) How do you link 'Responsible Leadership and CSR in Luxembourg?'

How do you link 'Responsible Leadership and CSR in Luxembourg' is best shown by the respondents' citations, separated into the three groups: 1) euphoric and positive respondents, 2) moderate respondents, and 3) critical respondents, as set out in the table below.

Table 3: Question 1: How do you link 'RL and CSR in Luxembourg? Representing the three groups of respondents.

Euphoric and positive respondents	Moderate respondents	Critical respondents
3 components of responsibility: 1. Economic, 2. Social, 3. Ecological.	RL is in relation with companies that integrate social and environmental concerns in their business.	I am not aware of such a link in Luxembourg. There are neither responsible leadership, nor CSR, nor any link, nor are they implemented in Luxembourg.
I am an authentic manager.	Support activities and comply to higher standards beyond the strictly economic, social and ecological interests.	Should take into consideration safety and health at work, but does not.
It's about the stakeholder components.	The responsible leader takes care of the organization's ethical behaviour.	The reality is: laying off people, bullying, unhappiness at work, minimum wages even for senior employees.
I work towards a better world. It's about saving the world.	Fulfilling the needs of multiple stakeholders.	In conclusion: RL and CSR are mostly words.
	The leader applies ethics towards all its stakeholders.	I don't know anything about CSR.
		There is no CSR in Luxbg.
		Despite high GDP, no budget for CSR.

		There are too many irresponsible leaders in Luxbg.
		We would urgently need change and innovation.
		This is the gap in knowledge, and this is your contribution to knowledge!

The following are some citations that provide more detail.

Euphoric and positive respondents reply:

Citation from a manager, Lux.Nat. category (R1):

"I am a responsible leader"

Citation from a Manager, Lux.Foreigners category (R2):

"Responsible leadership always consists of 3 components: 1. Economic, 2. Social, 3. Ecological. The link between responsible leadership and CSR in Luxembourg is the authentic leadership style, as well as the globalization, the innovation and creativity and the inclusion into the communes. I as the manager live this. I am an authentic manager. I live this as a manager and as a mother. Before, I was responsible for the environment department here. I was responsible for protection of the environment in Europe and in North Africa. Especially as a mother, I want to give my children a clean world."

The Manager from the Industry, Lux.Foreigners category (R3) explained:

"It's about the stakeholder component. I care most about work security. I want 0 accidents

We have a sign at the entrance: 386 days without accident. Our absolute record was 476 days!

Stakeholders are not only my people and their security at work, but also the community where we live. We live exactly in the middle of the community and are very much involved. NGOs are other stakeholders, including associations such as 'Stop Dioxine' and 'Mouvement écologique'. This said, we have a green telephone hotline, which citizens might use to complain about nuisances like noise or dust. We have an Integrated Management System (comprising ISO 9001 Qualität, ISO14001 Umwelt, ISO 50001 Energie, OHSAS 18001 Sicherheit). I am part of BAT groups: Best Available Techniques, in Brussels, and very proud of the fact that we are benchmarked in environmental techniques and our furnaces have the best dust extraction units worldwide.

Stakeholders are also suppliers and clients. All of our employees have to attend a training session about our Code of Ethics, Human Rights and Code of Business Conduct. This is part of the Legal Training. This meaning that I treat my employees well and no form of discrimination is tolerated here. Especially not under my management. I emphasize diversity, independent of gender, age, sexual orientation or education.

We verify that our suppliers produce in an ethical way: no child labour, no social dumping, no environmental dumping, no expulsion of entire ethnic groups, i.e. Indian reservations. We rely on the International Human Rights."

Here is what a Hotel Manager from the World category wrote in his brochure and confirmed in his interview (R4):

“The present Hotel works towards a better world by paying out company profits in the form of social dividends that benefit the surrounding area, enabling others to flourish too. It is a source of inspiration for its customers and a sprawling ground for new ideas and opportunities, with the aim of building an honest, sustainable and socially responsible society, together. It is a commercial catering and leisure business without shareholders, owned by a foundation, built on the foundations of the former school. This idealistic basis, funded by the private sector, inspired volunteers to work with and for each other. This challenged people to bloom on a social, mental, emotional, spiritual and physical level...”

Moderate respondents say:

A teacher from the Lux.Nat. category said (R1):

“Responsible leadership is in relation with companies that integrate social and environmental concerns in their business.”

Here is the citation from a lawyer, Lux.Nat. category (R2):

“Some corporate entities ensure to support activities and to comply to higher standards in some sensitive areas beyond their strictly personal financial and economic interests, i.e. by sponsoring social and non-profit organizations, like youth movements, research organizations...etc., by hiring handicapped employees beyond legal quotas, by applying higher environmental standards through selective waste management or fuel-efficient fleets of vehicles. One leader I know engages strongly in the circular economy, by using for example only recycled or used objects to furnish his offices + using energy saving heating and ventilation systems, both clearly creating also a better work environment for employees.”

A professor from the World category said (R3):

“The responsible leader takes care of the organization's ethical behaviour in and out of the organization's boundaries. The leader applies ethics towards all its stakeholders.”

This is what a start-up manager, World category, said (R4):

“The link between Responsible Leadership (given the multiplicity of “responsibility” and “CSR” in the sense of how companies are aligned with fulfilling the needs of multiple stakeholders is limited by the fact that corporations – like markets – are designed to maximize the profit of who designs them. The link between leadership and social responsibility in a company is visible in the choice, among different available business solutions, of the one which also has the greatest social benefit, and

walking away – from the company – in case the strategic directions are not compatible with the personal social principles.”

Critical respondents say:

A journalist from the Luxembourg Foreigners category had this critical citation (R1):

“I am not aware of such a link in Luxembourg. If there is any, it is not that obvious. 1) In terms of CSR in Luxembourg: companies have no sorrows laying off senior people and hiring junior staff with lower salaries... Counting on the welfare state has become a bad habit of corporates: On the one hand, they kick senior people out of their business, with the hope that the welfare state will take care of them. On the other hand, they hire senior and experienced people, under the condition that the welfare state will pay their salary and social contributions. 2) Furthermore, one never talked that much these last years about well-being, burnout or workplace bullying at work, so that the Government is now intending to pass a law to prevent and or punish bullying at work. 3) While interviewing people on their day-to-day work, most of them say they are unhappy at work, being on the minimum wage after so many years... 4) Luxleaks has shown that major international companies prefer to practice fiscal evasion instead of paying their regular tax contribution... My conclusion: Responsible Leadership and CSR are mostly words. They are neither linked, nor are they implemented in Luxembourg.”

Here is what a European Civil Servant had to say, Lux.Foreigners category (R2):

“There is no such link yet for the European Union, and we are lacking this research urgently. This is the gap in knowledge, and this is your contribution to knowledge!”

A manager, Cross-Borderers category, said (R3):

“Responsible Leadership is not just about creating value for shareholders but also creating value for stakeholders (employees, providers, clients, administrations, citizens...). First of all, responsible leadership must take into consideration safety and health at work.”

A respondent from the Lux.Nat. category said in the previous study from 2016 (R4):

“There are too many irresponsible leaders in Luxembourg. We urgently need change and innovation here.”

2) What does your company do in the field of CSR?

What the company does in the field of CSR is best shown by the respondents' citations, respectively in the 3 groups: 1) euphoric and positive respondents, 2) moderate respondents, and 3) critical respondents, as set out in the table below.

Table 5: Question 2: What does your company do in the field of CSR? Representing the three groups of respondents.

Euphoric and positive respondents	Moderate respondents	Critical respondents
Many great special activities/events are offered for all stakeholders: employees, the community, clients, customers...	The responsible leader takes good care of his employees, customers, suppliers, public and other stakeholders.	Honestly, I don't know what my company does about CSR.
There are many wonderful examples for RL and CSR in Luxembourg: neighbour festivities, sports pour tous, parties, school events....	Provides training in ethics.	Our firm is too small.
Energy saving activities: i.e.: installation of solar panels, waste management, recycling, soap collection.	Informs employees about their rights.	We are a start-up, we do not do much.
Innovation at its best.		
Sustainability projects.		
Equal reward systems for all employees.		
Equal employment for women.		
Swimming Pool, sports activities.		

Euphoric and positive respondents say:

The respondent from the hotel replied, World category (R1):

“Begin every day with something beautiful!

Three Sundays ago, I organized a special day/event, for kids with cancer, for their families. I asked everybody from the staff, to work on a voluntary basis, everybody could sleep in the hotel for free, benefit from the swimming pool, from the restaurant, from the nature and environment, the nice rooms. This is one of the many examples. I point this one out, because I met somebody at a party and his son has cancer, and the idea came me and of course we want to do it.” “Another example would be that we employ handicapped people who work in our garden. And we collaborate with the University of XXX by inviting Art students to our hotel, to stay in the hotel for several weeks and produce art that will remain in the hotel. Art, culture and nature is very important for our hotel. Most of the time we try to keep ‘local’ and ‘bio’, which is a challenge in cost and taste. Not every client likes to eat cabbage because it’s the season and from our own garden!”

A university professor, World category, noted (R2):

“The University of XXX is quite active in the CSR field. They promote the employment of women and indigenous people, prioritize sustainability projects, and invest in appropriate shares. Here are some examples (reply to the next question): We spent \$xxx on installing solar panels on the roof of our building and linked with research units to measure the effectiveness of 8 different methods and types of solar panel installation. Spent \$xxx on installing upgraded swimming pool plant to use less water

and less chemicals. Advertised women only academic positions in Mathematics and Sciences. Investing in sustainability friendly companies. Recycle as much as possible, including batteries. Controlling heating and cooling to reduce greenhouse gas emissions. All new buildings required to meet the highest level of ratings in sustainability. Conducting experiments to use geo-thermal heating and cooling options in buildings.”

The Manager from the Steel Company (Lux.Foreigners) shared these facts (R3):

“Steel can be recycled infinitely. We recycle everything that is out of steel, we melt it.

We save energy, we keep CO2 emissions low, we avoid dust, we keep our workplace clean.

We produced the steel beams for the ‘Freedom Tower’ in New York. The first of these steel beams travelled the entire USA, and everybody was asked to sign the steel beam.

10 years Industrial Leadership 2006-2016.

Many beautiful skyscrapers. Earthquake proof.

Sheet piles which protect the entirety of Venice from flooding, or which protect New Orleans’s coast after hurricane Katrina.”

The moderate respondents say:

A professor from the World category said (R1):

“Takes good care of employees, customers, suppliers, the public and other stakeholders. The organization provides training in ethics to all employees and managers.”

Citation from a lawyer, Lux.Nat. category (R2):

“Allocating extra-legal bonuses, extra-legal days off...etc, treating employees fairly and ethically.”

Citation from a professor, World category (R3):

“Inform employees about their rights, keep their rights and lead in terms of compensation and benefits. Maintain safety and protect all against violence and harassment.”

The critical respondents say:

Citation from a Human Resource Manager, Cross-Borderers category (R1):

“Honestly, I do not know, what our company does in regards to CSR.”

The Lux.Nat. lawyer answered (R2):

“Our firm has too small a scale (6 employees) to act consistently in that field, however it tries to act socially toward its staff by ensuring a “large” interpretation of social laws. A “services” firm like ours has only few possibilities to reduce its impact on the environment.”

The start-up manager, World category, answered (R3):

“Not much in an explicit way. However, as we are developing Cleantech solutions which reduce pollution and enable renewable power systems, the success of the company results is a success for

Sustainability. The vision & mission of the company is to contribute to “save the planet”.

3) What else could your company do in CSR? What would you wish they would do (more)? What didn't they do?

What else the company could do in the field of CSR and what they would have wished they would do is best shown by the respondents' citations, respectively in the 3 groups: 1) euphoric and positive respondents, 2) moderate respondents, and 3) critical respondents, as set out in the table below.

Table 6: Question 3: What else could your company do in CSR? What would you wish they would do (more)? What didn't they do? Representing the three groups of respondents

Euphoric and positive respondents	Moderate respondents	Critical respondents
Go local, buy local.	No responses here.	We should do more in environmental sustainability.
New recycling products. Recycle paper, soap, bottles, Introduce paperless system.		We consume masses of paper.
Reduce waste, re-use bottles...		Men and women are payed different wages for same jobs.
Organize fewer journeys by car.		
Focus on sustainability.		
Focus on communication.		
Focus on education of clients, customers, employees.		
Stay in the market.		
Continuously change, grow, develop, and innovate.		
Justice, equality and fairness in rewards distribution.		
Gender equality.		
Develop online/digital work/study/meeting.		

Euphoric, positive respondents say:

The Marketing Manager from the hotel, World category, said (R1):

“We have the milk from a farmer, very good, but 2 years ago they couldn't produce enough milk for us. The farmers couldn't follow our high demand, but this issue is now solved.

6 weeks ago, we went to D..., they make bottles, their mission is to get rid of all the plastic bottles in the ocean. We want to collaborate with them, so that our business guests can get a D..., and the guests can get their own D... to refill. D is a young company with a good mission, they want to change the world.

We do a lot, but this is not possible to do it all, we have to make choices, because people don't want to pay for it. We use natural materials in the beds. We will be producing our own beer, also organic.

A better focus on sustainability, and on communication, on education of the clients. To avoid spoilage for food, to ensure that guests do not take more food from the buffet than they can eat. I would like to

have only bio products here, but guests are not ready yet. Or to make guests take only 2 towels, but why do guests always want to have 10 or more towels? They always want more. Why? We want to save water. It is difficult to make the guests understand to save water in the shower. Of course, we have nice in-room showers, but guests should not waste water on too long showers. It is not simple. We have to satisfy a lot of people, private guests, companies, the government, it is not possible to satisfy always everybody. Luckily we can see a change in behavior."

About the liquid soap; we didn't want all the small soap, shampoo, conditioner anymore because it's a lot of waste in packaging/plastic. It's easy to refill. Last month my colleague was contacted about soap which is recycled from coffee! Maybe we have it next year. For now, our new liquid soap has a EKO certificate.

There are even colleagues in the hotel who worked here already in the Volkshogeschool, sometimes over thirty years! They saw the whole transition from Volkshogeschool to 'blooming' these days. One of our managers is already 15 years in 'blooming' and on my own department two colleagues will be 10 years here in September. Of course, the younger employees in hotels make the switch easier."

The respondent from the Steel Company, Lux.Foreigner category, explained (R2):

"Stay in the market. You have to continuously develop, change, grow, in all domains. We have tried everything, there is nothing we didn't try. All necessary steps are undertaken."

Citation from a professor, World category (R3):

"Provide justice, equality and fairness in rewards distribution, mostly between the genders. Take care of the environment."

Citation from a lawyer, Lux.Nat. category (R4):

"i.e. by working with a more efficient paperless IT system, using recycled paper (although sometimes of a poorer quality)."

This is what a manager of a language school, Cross-Borderers category, said (R5):

"Organize fewer journeys by car. Develop language classes by phone or by Skype. Organize some health and/or yoga workshops in order to help our employees in feeling better at work."

Moderate respondents say:

There were no moderate respondents here.

Critical respondents say:

Citation from a lawyer, category Lux.Nat. (R1):

"Although limited in its possibilities, our firm could do more in environmental sustainability, as it is consuming masses of paper."

Citation from a professor category World (R2):

“Pay males and females equal rewards for equal inputs.”

4) What else do you know about CSR?

What else do you know about CSR is best shown by the respondents' citations, respectively in the 3 groups: 1) euphoric and positive respondents, 2) moderate respondents, and 3) critical respondents, as set out in the table below.

Table 7: Question 4: What else do you know about CSR? Representing the three groups of respondents

Euphoric and positive respondents	Moderate respondents	Critical respondents
No responses in this group here.	No responses in this group here.	Unfortunately, CSR is not sufficiently widespread in Luxembourg.
		I cannot quote any further specific practical applications.
		CSR is a strategic concept that requires companies to accept their responsibility towards society.”
		Everybody says it is essential to an organization's success but very few actually apply it in their organization.

There were no responses from euphoric and positive, or moderate respondents. This question was answered generally in a critical way.

Citation from a lawyer, Lux.Nat. category (R1):

“Unfortunately, CSR is not sufficiently widespread to my knowledge in Luxembourg and I cannot quote any further specific practical applications.”

Citation from a manager, Cross-Borderer category (R2):

“CSR is a strategic concept that requires companies to accept their responsibility towards society.”

Citation from a professor, World category (R3):

“Everybody says it is essential to an organization's success but very few actually apply it in their organization.”

2) What is specific about Luxembourg in the field of CSR?

What is specific about Luxembourg in the field of CSR is best shown by the respondents' citations, separated into the 3 groups: 1) euphoric and positive respondents, 2) moderate respondents, and 3) critical respondents, as set out in the table below.

Table 4: Question 2: What is specific about Luxembourg in the field of CSR? Representing the three groups of respondents.

Euphoric and positive respondents	Moderate respondents	Critical respondents
Tripartite: social model typical for Luxembourg, in combination with the State, ARBED and the trade unions, functioning since the 1970s.	Sensitivity to the special needs of the cross-border workers (language, labour, legal differences such as in taxation, cultural attitudes toward gender, race and national origin) and their working hours and holidays.	Responsible Leadership linked with Social Responsibility: the human being should be in the middle of the economic actions. The question is: is this really so?
Japanese management method 5S.	Responsibility to the maintenance of a strong and productive EU and respect for the legal differences between the various EU nations.	From my own professional experience, in all of my leading positions, the well-being of my employees stood always in the centre of my endeavours. I succeeded in having satisfied employees and a good climate, otherwise I couldn't have realised the good results.
Resisting the price dumping from China.	The Big Four are active in this field.	Today everything is impersonal, I think I realised my objectives of being a responsible leader.
Pre-pension possibilities.		I was laid off.
Varied training program, including security, health, field competence, languages, law.		My company was shut down.
0 accidents.		Despite its generally high standard of wealth, Luxembourg's corporate entities should more easily be able to allocate budget and human resources to CSR policy than in economically less fortunate countries.
The high standard in general.		Change and innovation is needed here.
Specific environmental technologies.		
Diversity in cultures and languages.		
Low turnover of employees.		
Many great examples: sports, gardens, festivities, languages, cultural mix, fairs.		
The social component.		

The euphoric, positive respondents say:

The respondent from the industry, Lux.Foreigner category, named the following as typical (R1):

- "Typical for Luxembourg is the 'Tripartite', this is the social model typical for Luxembourg, in combination with the State, ARBED and the trade unions, functioning since the 1970s.
- We try to resist the price dumping from China. This is a real challenge, but until now we resisted successfully, thanks to development of high added value products and innovation.
- We practice the Japanese management method, 5S, in our plant.
- The pre-pension possibilities.

- The varied training program, including security, health, field competence, languages, law...
- We aim at 0 accidents.
- Benchmark regarding the environment. The high standard in general, and in specific environmental technologies.
- The diversity in cultures and languages.
- The turnover of the employees is very low. In general, employees remain until retirement, and over several generations."

Citation from a Lux.Foreigner (R2):

- "There are many great examples in Lux:
- Sport pour Tous: super for integration and avoiding burn-out ☺.
- Jardin communautaire: all together we work on a plot of land. I participate in such a garden in Bonnevoie and it feels just great to see people of all sorts, all origins and all ages work together in order to cultivate bio vegetables or at least try to do so ☺.
- At school, the kids have all kind of good initiatives: recycling/ sport for good causes/ ...
- I'm of the opinion that Luxembourg manages to keep parties of the 'Le Pen' style under control due to the common Luxembourgish language skill. All nationalities easily mix as they speak a common language. When I see how it works out for our kids I'm just amazed and so proud about how they get along with all. In Bonnevoie, we have such a fantastic cultural mix and we manage to live very well together. Putting kids in public school prepares them for the complicated world we live in.
- Big number of playgrounds: people meet and talk to each other while kids play together.
- Investments in sports facilities (i.e. skatepark) great to see that younger people have fun instead of being in front of screens.
- Red Cross (Croix Rouge) shop Bonnevoie: great initiative, the location to bring your used things to.
- Rotondes: fantastic place against a grey society, everybody feels welcome.
- Luxembourg invests in keeping the city clean/ this motivates people to do the same.
- At a very young age schools start to teach children about the importance of recycling and healthy food.
- Initiatives that motivate people to meet. For example, neighbour's day / thanks to such kinds of initiatives, neighbours communicate.
- Velo'h: great initiative but here we think Luxembourg could do much better. The problem is that it doesn't always feel safe to cycle in the city. We're convinced that lots of people could get motivated to take bicycles to work.

- Language courses: promotes integration.
- I take Luxembourgish language courses myself and since I do that, I pass by my neighbour of 80 almost every Thursday to have a chat in Luxembourgish.
- At school, kids get information about the fact that the water that comes out of the tap is of very good quality. Since then they insist on us not drinking still water out of bottles anymore.
- Drugs: the police pass by in school to give explanation about drugs. At a very young age they learn not to touch any needles. Due to this open communication about the problem we will hopefully be able to protect our kids."

Citation from a Lux.Nat., responsible for water management in Luxembourg (R3):

"The social component: we organize many visits with young people and children, to sensitize them about water: where our water comes from, how to save it, how not to spoil it, how to keep it clean.

In collaboration with farmers, to sensitize them, because of pesticides, and fertilizers, and protection of the groundwater, the choice of which plants, and also the decisions by the EU."

The moderate respondents say:

Citation from a professor (R1): "Sensitivity to the special needs of the cross-border workers (language, labour, legal differences such in taxation, cultural attitudes toward gender, race and national origin) and their working hours and holidays. Also, responsibility to the maintenance of strong and productive EU and respect for the legal differences between the various EU nations."

Citation from a professor (R2):

"The Big Four are very active in this field."

The critical respondents say:

This is what a former Plant Director, Lux.Nat. category, had to say (R1):

"Responsible leadership and CSR depend on the economic system: social market economy, capitalistic market economy or communist planned economy, and their mixed systems. Profit maximization is the highest aim of capitalism: satisfying the shareholders! Without any social component, nor social insurance. Profit optimization should be the Leitmotiv of the social market economy. The economy should work with the available means, but with respect for social criteria. This means: Responsible Leadership linked with Social Responsibility: the human being should be in the middle of the economic actions. The question is: is this really so?

In the capitalistic system, Responsible Leadership and CSR cannot be realised, as only money rules the world. Making money is the only objective. Communism would need an extra explanation.

In the social market economy, the social component should be considered, which unfortunately is not always true.

From my own professional experience, in all of my leading positions, the well-being of my employees stood always in the centre of my endeavours. I succeeded in having satisfied employees and a good climate, otherwise I couldn't have realised the good results. When I meet a former employee today, he says: the best time we had was under you. Today everything is impersonal, I think I realised my objectives of being a responsible leader. Two years after my retirement, the company was shut down.

Change and innovation is needed here."

Citation from a lawyer (R2):

"idem question above. However, by its generally high standard of wealth, Luxembourg's corporate entities should more easily be able to allocate budget and human resources to CSR policy than in economically less fortunate countries. On the other hand, that same wealth provides to everyone already much higher social standards of protection like health coverage and unemployment benefits, plus a cleaner environment through more sophisticated and modern technical facilities."

DISCUSSION

A call for change and innovation is heard out of the contradictory answers given by the respondents of this research. Despite this call for change, the high Uncertainty Avoidance Index seems to prevent any endeavour for much needed change. This change and innovation is needed, according to the critical respondents, to implement the missing responsibility and sustainability. Toxic or irresponsible leaders being too often the reality, the authenticity of the leader is not always positive, on the contrary, sometimes it is negative. As a respondent from the category Lux.Nat. had said in the previous study from 2016: "There are too many irresponsible leaders in Luxembourg." There is a call for change, to change irresponsible leaders into responsible leaders, to make them learn responsibility, sustainability, and ethics. The question is: how?

Despite the variety in extant literature, the above reprinted interviews give an even deeper view of the current situation of responsible leadership and CSR. However, the amount of data collected in 64 interviews in this study, allows for more discussion and conclusions. Combined with the literature, the variety of answers is so big, one single or unique reply is not possible. The author would even tend to state, the more interviews, the more tendencies. Therefore, supporting Puznan and Miller's (2006) opinion – let's see what we are really talking about – the author presents the huge variety of responses, from the euphoric respondent for whom CSR is absolutely fantastic, passing by the more neutral respondent for whom CSR is just normal, until the critical respondent for whom CSR is, let's say, non-existent. The 64 respondents gave a combination of all of this. Dependent on variables such as industrial sector, cultural origins and dimensions, age, gender, and size of the company. As all of

these variables influence responsible leadership and CSR actions, more sophisticated statistical methods would be needed, and eventually more interviews, to elaborate the influence of each of these variables on the responses. The connection between responsible leadership and CSR in Luxembourg is the authenticity of the leader and his modelling role in lived CSR.

CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH

"I am a responsible leader" was answered by one respondent when asked who is a responsible leader. The purpose of this research was to explore first, if there is a link between responsible leadership and CSR in Luxembourg, and second, what is typical for Luxembourg. 64 semi-structured interviews were conducted from January to August 2017 in English, French, German, Luxembourgish, and Italian among four culturally different samples, notably: 1) Lux.Nat. (Luxembourgers with Luxembourgish Nationality), 2) Lux.Foreigner (foreigners who reside in Luxembourg), 3) cross-borderers (people who come to work to Luxembourg every day from Germany, France, and Belgium), and 4) the rest of the world (World). Sampling was convenience sampling. The author reviewed the extant literature and reprinted parts of the interviews.

After having reviewed the literature, the author tends to stay with the opinion expressed by Puznan and Miller (2006, p. 68). "CSR, Responsible Leadership, Socially Responsible Investing... Such terms are rapidly becoming part and parcel of the modern management idiom. Some people unreservedly applaud what appears to be an increased focus on and awareness of responsibility in business. Others take a more cynical view. Still others say, 'Before we plunge ahead, let's pause and reflect on what we're really talking about here.' We belong to this third category, even after having contributed to the theoretical and practical development of the concept of CSR for many years." The author also belongs to this third category, adding that it is not necessarily the leader's values and/or other stakeholders' values and culture and/or the board's vision/mission, as well as the corporation's culture. Finally, external forces such as government, the economy, socio-cultural peculiarities or new technology might have forced leadership to act in this specific way. This is subject for further research.

In conclusion, the author's proposition was confirmed: Luxembourg's linguistic and cultural particularities means that any links between responsible leadership and CSR will not be homogeneous in the country's companies. Therefore, such links will depend on the authenticity of individual leaders or groups of leaders and this, in turn, depends mainly on cultural dimensions and the leader's value system.

Internal change is needed. Internal changes are essential constituents of the internationalization process itself (Welch & Luostarinen, 1988) and changes are complex and intertwined (Lam & White, 1999; Nummela, Loane & Bell, 2006).

Characteristic for Luxembourg, in terms of Hofstede's cultural dimensions, is high Uncertainty Avoidance (UA), high Long-Term Orientation (LTO), high Collectivism (low Individualism), with a mix of 3 official languages: Luxembourgish, German and French.

The combination of Hofstede's cultural studies – Uncertainty Avoidance (UAI) – with leadership issues and CSR is innovative and will open the path for further research on cultural and linguistic peculiarities in Luxembourg. Future research is needed to determine the impact of each of these cultural dimensions, CSR and responsible leadership activities on the attractiveness of Luxembourg for leaders, for example in the choice of the country as a destination for expatriate leaders.

This research has also its limitations. This being a qualitative research, a quantitative approach could broaden the outcomes. The interviewed managers were exclusively 'responsible leaders' in the eyes of the author. In a previous study from 2016, published in 2017, the author also interviewed 'irresponsible leaders', with the aim to compare responsible and irresponsible leadership in Luxembourg (Schinzel, 2017b).

The outlook for the future calls for change and innovation by overcoming the high UAI in Luxembourg. New ways of thinking and acting are needed. Everything begins with observation and the author did this: the observation of the current situation, followed by an analysis of ideas of change and innovation for the future. In some cases, radical change is needed to comply with responsible leadership and CSR theory. Despite high Uncertainty Avoidance, there are time restrictions. Change needs time. Time is an important element. Time runs faster within an entrepreneurial firm than in a large firm or within the State. The level of Uncertainty Avoidance is important, when radical change is needed. The level of uncertainty avoidance is so high and the change needed is radical. On another note: Is it internationalization that provoked the need for change, or is it the change that provoked the internationalization in Luxembourg? The social organization of the firm and time are other factors. Sequencing, timing and social factors cannot be separated and the interaction between them cannot be separated. What comes first is difficult to say. We are talking about human beings. The nature of human beings is fundamentally important in this study. Learning is also part of this process of change. Everything changes. The process is of learning, of change, of innovation. There are changes in the way people learn, and the whole process of learning changes. It is not about 'being', but about 'becoming'.

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IMPROVING CONSUMERS' ONLINE EXPERIENCES: THE ROLE OF HEDONIC DIMENSIONS

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ABSTRACT

In this paper, we address the impact of a number of hedonic dimensions, specifically perceived visual attractiveness, perceived enjoyment and sociability, in consumers' online experiences. We develop and test a research model explaining how these factors affect online trust, satisfaction and, ultimately, website loyalty. A survey carried out to 132 airline users supports all proposed hypotheses confirming that enriching consumers' sensory experiences online through aesthetics, an enjoyable experience, and a social interaction interface affects positively satisfaction, trust and subsequently loyalty (both affective and conative).

Keywords: Hedonic dimensions; Avatars; Perceived visual attractiveness; Perceived enjoyment; Sociability; Online Trust; Satisfaction; Website loyalty.

INTRODUCTION

Improving online interfaces is very important for e-commerce companies (Pappas et al. 2017). Making online navigation easier may have an enormous potential for enriching consumers shopping experiences online (Cyr et al. 2006; Papadopoulou, 2007; Pappas et al. 2017) and increase satisfaction and loyalty. The use of Avatars has pointed as a website feature that allows to personalize consumers' experience online (Alves and Soares, 2014; Moon, Kim, Choi, & Sung, 2013) by improving the perceived sociability and rendering navigation experience more enjoyable for consumers (Wang and Fodness, 2010). In addition, the perceived sensory experience, translated by the aesthetics of the site which can render the navigating experience more enjoyable, has been pointed as an important dimension to enrich and facilitate navigation (Lavie & Tractinsky 2004; Van der Heijden 2003; Robins & Holmes 2008; Cyr et al. 2006).

Moreover, online shopping behavior studies aiming at understanding the consumer's adoption behaviors have focused either on different outcomes, such as loyalty (Forgas et al. 2012), purchase/patronage intention (Alves & Soares 2013; Dabholkar & Sheng 2012; Kim et al. 2008; Wang & Fodness 2010; Van Der Heijden et al. 2003) or purchase (Kim et al. 2008). Loyalty is obviously an important outcome as, ultimately, the success of a business can be measured by the number of returning customers. However, studies focusing on loyalty are scarcer. In online transactions, loyalty,

also referred to as e-loyalty, has been defined as the intention to visit and make purchases in the future (Forgas, Palau, Sanchez, & Huertas-Garcia, 2012). It is also important to assess the satisfaction experienced with the decision to visit and shop online. Despite the fact that satisfaction and loyalty have an asymmetric relationship (Oliver 1999), a satisfied customer is more likely to return (Pappas et al. 2014). Thus, this paper focuses on these two outcomes: satisfaction and loyalty. Considering also that an important motivation for engaging in online retail shopping includes the hedonic function of the website, this study focuses on a number of hedonic factors, such as: perceived visual attractiveness, perceived enjoyment and sociability that may impact both trust and satisfaction. This is particularly relevant in the sense that we know little about the role of the hedonic factors as antecedents of trust and satisfaction and their effect on loyalty in online settings.

The remainder of this paper is organized as follows: In the next section, we present the conceptual background on the impact of hedonic factors in using online interfaces, leading to the proposed model and hypotheses. Then, the methodology and empirical study are presented. The final section addresses the conclusion and limitations of the research.

LITERATURE REVIEW AND HYPOTHESIS

Hedonic factors: Perceived Visual attractiveness, Sociability and Perceived Enjoyment

Earlier approaches to understand technology adoption have focused on utilitarian factors. However, hedonic factors have also been pointed as important factors not only to explain the decision to buy online but also to improve the quality of the user experience. Below, we discuss perceived visual attractiveness, perceived enjoyment and sociability as relevant social dimensions for online use. We posit that these factors are relevant because they have an impact on trust and satisfaction with the online experience. These, in turn, impact on loyalty.

The concept of “perceived visual attractiveness”, refers to “the degree to which a person believes that the website is aesthetically pleasing to the eye” (Van der Heijden, 2003, p. 544). Robins & Holmes (2008) found that page aesthetics affected users’ decision to stay or go. Previous studies have shown that the interface visual aesthetics contributes to not only to users’ satisfaction (Lavie & Tractinsky, 2004; Tractinsky, Cokhavi, Kirschenbaum & Sharfi, 2006) but also to online trust.

The perceived enjoyment dimension, i. e. whether using the computer is “perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated” (Davis, Bagozzi, & Warshaw, 1992, p. 1113), was also pointed as an important factor in website usage. This factor was shown to impact positively both the attitude towards use and intention to use (Dickinger, Arami, & Meyer, 2008; Teo and Noyes, 2011, Van der Heijden 2003).

Finally, with regard to the sociability dimension, it refers to perception of social presence and sensitive human contact through the medium (Wang & Fodness, 2010). This perception of social stimuli as courtesy, kindness, empathy and sympathy has been deemed important to overcome the consequences of the lack of face-to-face interactions between the consumer and the seller in online settings (Alves and Soares, 2014). Using an avatar has been identified as an important factor to allow consumers a more personalized experience (Alves and Soares, 2014; Moon, Kim, Choi, & Sung, 2013). In particular, extant research has posited that avatars can contribute to mitigate the lack of personalization and possibility of interaction with a sales person. Avatars allow for a sense of sociability and contribute to elicit positive emotions rendering the online navigation experience more enjoyable for consumers (Wang and Fodness, 2010).

Trust, Satisfaction and Loyalty

In online contexts, as in other transaction contexts, the role of trust is a prerequisite for exchanges (Kim et al. 2008). Trust refers to the conviction for acting in accordance with the recommendations of the seller and/or website (Cugelman et al, 2009). It is the willingness to depend on the goodwill of the trader; and to become vulnerable to the seller (McKnight, Choudhury & Kacmar, 2002).

Studies on online trust have initially looked at technical aspects, such as privacy and security and perceived web quality (Kim et al, 2008; Al-Debei et al. 2015). A substantial body of research focus on the connections between trust and perceived risk (e. g. Van Der Heijden et al. 2003; Jarvenpaa et al. 2000; Chang & Chen 2008). However, studies focusing on other behavioral determinants of trust in e-commerce and online settings are scarcer. Wang & Fodness (2010) argue that the emotional element of experience is important online and that avatars can contribute to mimic the interaction with a salesperson thus eliciting positive emotions.

Considering the aforementioned discussion, the following hypotheses are presented:

H1 – The higher the perceived visual attractiveness the greater online trust

H2 – The higher the perceived enjoyment the greater online trust

H3 – The higher the Sociability the greater online trust

H4 – The higher the Sociability the greater satisfaction.

Several studies have proposed a link between trust and satisfaction and suggest that trust has a central role in the consumer evaluation of the online experience (satisfaction) (Kim et al, 2008 Wu 2013). For example, Pappas et al, 2014 found that trust impacts positively satisfaction, regardless the level of consumer experience with online shopping. Hence the following hypothesis is proposed:

H5 – Trust has a positive impact in satisfaction.

Conquering the loyalty of customers may be said to be the ultimate goal of businesses. Loyalty has been defined as “a deeply held commitment to re-buy or re-patronize a preferred product/service

consistently in the future, thereby causing repetitive same brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 1999, p. 34). Oliver (1999) has conceptualized loyalty as a process. The loyalty building development starts with cognitive loyalty, continues through affective loyalty and culminates in conative loyalty. Satisfaction was found to have a positive impact in loyalty (Forgas et al, 2012, Yüksel et al 2007). Following the study of Forgas et al (2012), we will focus on affective and conative loyalty. Thus, the following is proposed:

H6a – The higher satisfaction the greater affective loyalty.

H6b – The higher satisfaction the greater conative loyalty.

Figure 1, below, displays the proposed hypotheses.

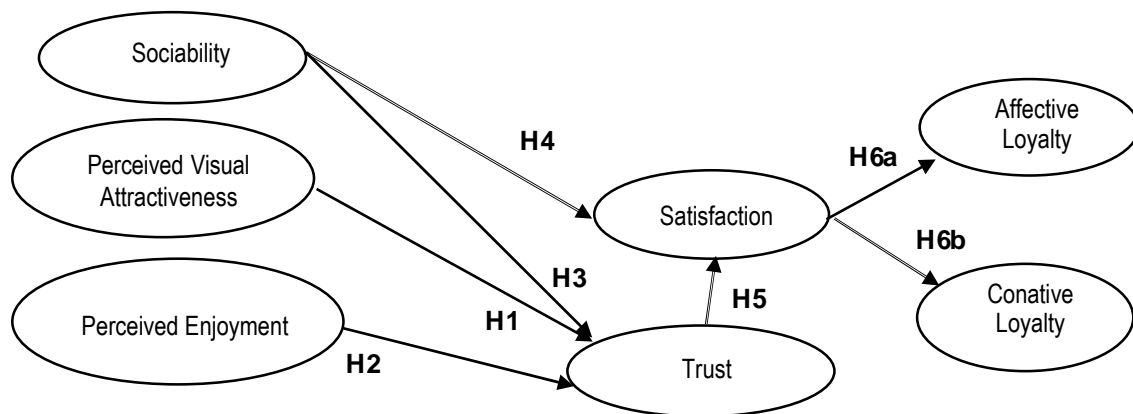


Figure 1 – Research model

METHODOLOGY

The purpose of this study is to assess how a number of factors impact trust satisfaction and loyalty after the introduction of an avatar in the website of a large airline company. With such purpose in mind, we used a quantitative methodological approach as it seems to fit our research objectives more adequately. Validated scales for the constructs of interest were sourced from the literature (van der Heijden, 2003; Wang & Fodness, 2010; Alves & Soares, 2013 and Forgas et al., 2012). These scales were independently translated into Portuguese by two experienced consumer behaviour researchers.

Data was collected using an airline company website which can be used for making ticket reservations and buying flights. The demographic profile of the respondents is presented in Table 1. First, our sample comprises 132 website users. Second, the vast majority of respondents are male and were born before the eighties (Table 1). Third, the great majority of the respondents has a high school diploma and

around 60% belong to top management. It is also interesting that nearly 60% use sporadically the site xxx.com.

Variable		Frequency (n=132)	% valid (total)
Gender	Female	34	25.8%
	Male	98	74.2%
Age	1946-1964	61	46.6%
	1965-1980	61	46.6%
	1981-1995	8	6.1%
	> 1996	1	0.8
Level of Education	Basic school	2	1.5%
	Secondary school	16	12.1%
	High school	114	86.4%
Occupation	Top Management	80	60.6%
	Middle Management	17	12.9%
	Qualified workers	35	26.5%
Frequency of use the site xxx.com	Sporadically	80	60.6%
	One time per week	30	22.7%
	More than one time per week	22	16.7%

Table 1.

Table 1:

Respond

ent

profile

DATA ANALYSIS

In order to test our research hypotheses, we used the PLS with SmartPLS v.3.2 (Ringle, Wende, and Becker, 2015). Before testing the research hypotheses, an assessment of the constructs' psychometric properties (convergent validity, reliability and discriminant validity) was performed. Furthermore, despite the measurement and structural parameters are estimated together, the PLS algorithm is computed in two stages: 1) the assessment of the measurement model and 2) the assessment of the structural model.

Assessment of the Measurement Model

In line with Mackenzie, Podsakoff and Jarvis (2005) recommendations only the sociability construct was conceptualized as formative whereas the remaining constructs were considered as reflective. When examining the formative model it is crucial to evaluate both the potential multicollinearity between items and the analysis of their weights (Róldan and Sanchez-Franco, 2012). High collinearity between items cause unstable estimates and make difficult to isolate the distinct effect of an individual item on its intended construct. Frequently, the maximum variance inflation factor (VIF) value for each variable indicates the presence of multicollinearity, i.e., a VIF above 3.3 indicates a multicollinearity problem (Róldan and Sanchez-Franco, 2012). At the present study only one item is slightly above (VIF=3.83) the referred VIF cut-off point (Table 2) which does not jeopardize the degree of consistency of this construct.

The next step requires the assessment of weights, which measures the contribution of each items to the variance of the construct. A significant level of at least 0.05 suggests that a formative indicator is relevant for building a composite construct (Róldan and Sanchez-Franco, 2012). In order to test the significance of weights a bootstrapping resampling procedure of 5000 resamples was computed. Along this process only two of five formative items measuring sociability were identified as having a t-value below 1.96. Yet, in line with several authors, we decided to keep these items because deleting an item would imply to remove a part of the composite construct (Roberts and Thatcher, 2009).

In turn, the measurement model for reflective constructs is assessed in terms of individual item reliability, construct reliability, convergent validity and discriminant validity. Our analysis confirmed

that the items are above the recommended cut-off point and share (on average) at least half of their variance with the construct (Bagozzi & Yi, 1988; Chin, 1998). As shown in Table 2 and Table 3 all reflective latent constructs satisfy this condition.

Items for each construct (Reflective Constructs)	Factor loadings	t-value
Loyalty (affective) (CR=0.98;CA=0.96; AVE= 0.95)		
I like the xxx.com website	0.98	252
I think xxx.com is a good website	0.98	250
Loyalty (conative) (CR=0.94;CA=0.88; AVE= 0.89)		
If I need it, I shall continue to book a flight from the xxx.com website.	0.93	34.9
I shall continue to recommend xxx.com website	0.96	119
Perceived Attractiveness (PA) (CR=0.94;CA=0.91;AVE= 0.85)		
Overall, I find that xxx.com looks attractive.	0.91	30.0
The layout of xxx.com is attractive.	0.94	45.7
The colours, images and dynamic elements that are used on xxx.com are attractive	0.91	43.2
Perceived Enjoyment (PE) (CR=0.94;CA=0.91; AVE= 0.80)		
Enjoyable / Disgusting (1)	0.90	45.8
Pleasant / Unpleasant (2)	0.91	45.8
Exciting / dull (3)	0.84	26.4
Interesting / boring (4)	0.92	51.0
Satisfaction (CR=0.95;CA= 0.92;AVE= 0.87)		
The website meets my expectations	0.94	96.2
All the contacts with the xxx.com website are satisfactory.	0.89	25.6
In general, I am satisfied with the xxx.com website	0.95	148
Trust (CR=0.88;CA= 0.82;AVE= 0.62)		
The xxx.com website appears to be more trustworthy than other similar websites I have visited.	0.76	13.4
The xxx.com website represents a company or organization that will deliver on promises made.	0.89	12.8
The information set out in the xxx.com website deserves my trust.	0.84	40.9
I trust the recommendations of the xxx.com website.	0.72	26.2
Formative Construct	Avatar	
Sociability	VIF	Weight t-value
1.Friendly	2.78	0.20 1.98
2.Warm	2.98	0.05 0.48
3.Helpful	3.83	0.39 3.00
4.Polite	2.24	0.13 1.31
5.Informative	2.47	0.42 2.94
6.Intelligent	3.34	0.26 2.20

Legend: CR (Composite Reliability); CA(Cronbach's Alpha); AVE (Average Variance Extracted)

Table 2: Measurement scales (Factor Loadings and reliabilities)

Table 3 depicts the correlations between different constructs and shows the two criteria adopted to assess discriminant validity (Fornell-Larcker and HTMT).

Fornell-Larcker	1	2	3	4	5	6	7	HT MT	1	2	3	4	5
Loy-affective	(0.98)							(1)					
Loy-conative	0.81	(0.94)						(2)	0.84				
P. Attractiveness	0.77	0.68	(0.92)					(3)	0.81	0.74			
P. Enjoyment	0.79	0.71	0.73	(0.89)				(4)	0.84	0.78	0.79		
Satisfaction	0.91	0.74	0.71	0.76	(0.93)			(5)	0.90	0.80	0.77	0.81	
Sociability	0.82	0.72	0.70	0.79	0.77	(na)		(6)					
Trust	0.67	0.69	0.67	0.67	0.66	0.69	(0.81)	(7)	0.74	0.78	0.77	0.76	0.74

Notes: The diagonal (in brackets) shows the square roots of the AVE; * $p < 0.05$; ** $p < 0.01$;

Table 3: Pearson Correlations, Discriminant validity

Based on previous analyses, we concluded that the proposed measurement scales shows unidimensionality and conceptual consistency.

Assessment of the Structural Model

Based on a satisfactory assessment of the measurement model, the proposed hypotheses of the conceptual model can be estimated throughout the statistical significance of path coefficients. In order to generate the path coefficients, t-statistics and standard errors, the bootstrap procedure (5,000 resamples) was used. This technique generates a large number of sub-samples from the original sample through the systematic deletion of observations. The t-values and 95 percent bootstrap confidence intervals were computed to provide additional information on the stability of the coefficient estimates. As Castro and Roldán (2013) observed, the percentile approach is recommended because it has the advantage of being completely distribution free. Results are depicted in Table 4.

Paths	Direct Effect s	t-Value (bootstra p)	Conf. Interval	Supporte d
H1: Perceived Visual Attractiveness → Trust	0.30***	3.49	[0.180-0.470]	Yes
H2: Perceived Enjoyment → Trust	0.19**	1.97	[0.03-0.361]	Yes
H3: Sociability → Trust	0.33**	3.06	[0.117-0.473]	Yes
H4: Sociability → Sstisf	0.60**	7.43	[0.440-0.721]	Yes
H5: Trust → Satisfaction	0.23**	2.52	[0.09-0.402]	Yes
H6a: Satisfaction → Loyalty (affective)	0.90***	44.3	[0.867-0.938]	Yes
H6b: Satisfaction → Loyalty (conative)	0.74***	13.0	[0.628-0.822]	Yes

Based on t (4999); * $p < 0.05$; t (0.05; 4999) = 1.645; ** $p < 0.01$; t(0.01;4999) = 2.327; *** $p < 0.001$; t(0.001;4999) = 3.092; †bias-corrected and accelerated (BCa) BCI; one-tailed.

Table 4: Results of Hypothesis Testing

The predictive power of the model was also examined by assessing the cross-validated communality and cross-validated redundancy index (Q2). After analyzing the results it was concluded that the model showed predictive relevance.

In terms of results, Table 4 indicates that all the proposed hypotheses are positively and statistically significant. It is relevant to emphasize that the larger influence relates to the hypothesis 6a that maintains that the higher the Satisfaction, the greater its influence in affective loyalty ($\beta=0.90$; $p < 0.001$). This is followed by the impact of Satisfaction on the second dimension of loyalty, the conative dimension ($\beta=0.74$; $p < 0.001$). Thus, both hypotheses relating Satisfaction with Loyalty were strongly confirmed (H6a. H6b). The third larger impact relates to H4, which refers to the impact of Sociability

on Satisfaction ($\beta=0.60$; $p<0.001$). This is followed by H3 ($\beta=0.33$; $p<0.01$), which predicts that Sociability has a positive impact on Trust and H1 ($\beta=0.30$; $p<0.001$), which posits that Perceived Visual Attractiveness (PVA) has a positive impact on Trust. In the same line, H2 ($\beta=0.19$; $p<0.01$), which states that Perceived Enjoyment has a positive and significant impact on Trust was also confirmed. These results lead us to conclude that the considered hedonic dimensions exercise an important effect on Trust.

Finally, the study also confirms H5, which posits that Trust impacts on Satisfaction ($\beta=0.23$; $p<0.001$).

DISCUSSION OF THE RESULTS

This study investigated the effect of Perceived visual attractiveness, perceived enjoyment and sociability in satisfaction, trust and website loyalty. The primary theoretical contribution of this study lies in investigating the joint effects of hedonic and emotional functions embedded in a website of a large airline company. These study focused mainly on three major factors, namely, Perceived Visual Attractiveness, Sociability and Perceived Enjoyment. Taken as a whole, the results of our study confirm that various hedonic dimensions affect positively Satisfaction, Trust and subsequently Loyalty.

Put it another way, our study suggests that improving the aesthetics of the website improves the quality of the navigation and the quality of the consumer experience online, specifically by improving the trust on the site and the satisfaction with the website. This in turn leads to a higher affective and conative loyalty. This study is in line with the call made by Frank (2009) who stressed that “marketers are still catching up with constantly evolving digital (marketing) communication tools” (cited by Wang and Fodness, 2010, p. 355). Our study adds to the understanding of how can webpage design contribute to enhanced trust, satisfaction and ultimately loyalty.

Finally, certain shortcomings of the study need to be kept in mind. First, these results are not generalizable, though we believe this study may be a relevant contribution to the understanding of online behavior of consumers of airline companies. Second, this study did not explore extensively the utilitarian dimension of the consumer’s online experience as our main goal was to understand the hedonic dimension. Given the rapid advances of the graphical use interface technologies, it would be expected that in a near future the tasks assigned to this functionality will be more complex and interactive.

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THE GROWTH OF ENTREPRENEURSHIP IN CHINA: FROM A HIDDEN TO A WIDELY DIFFUSED PHENOMENON.

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ABSTRACT

Over the last 30 years China's per capita GDP at current prices passed from \$150 to \$4603 in 2010, life expectancy augmented of five years and more importantly more than 630 million people left a condition of absolute poverty, reducing the percentage of people living in these conditions from 81.6% to 10.4%.

The most representative symbol of this rapid growth is undoubtedly the figure of the entrepreneur. From outsider and ostracized by the community, the role of entrepreneur cover today a central role of the whole economic movement, representing the real engine of innovation within the state.

But what does it mean exactly being an entrepreneur in China? Is this figure socially linked to an overall sense of morality? And, is its meaning very different from the European and US one? This research starts to build a framework to better understand the role of entrepreneurs in China through the use of a survey among Chinese students, professors and entrepreneurs.

Keywords: Entrepreneurship, China Governments, Venture Capital, Startup.

INTRODUCTION

After years of economic lagging, in 1978, Political Elite approved several reform policies for stimulating again the productivity in China. In particular, the central government tried to decentralize some key economic activities to the local governments such as agriculture, by decentralizing the production to farmers through a land-lease system and laying the foundation for a gradual liberalization of rural markets; and industry, where reformers tried to start a system concerning the retention of profits and more enterprise autonomy.

Moreover, the central state also started a system of foreign capital investments (FDI) in order to alleviate capital constraints and foster the technological process within the state and implemented a fiscal decentralization program for introducing new economic incentives for provincial and local governments through a system of revenue-sharing arrangements (V. Nee, S. Oppen, 2012).

According to major experts, the fragmented political reforms that characterized China after 1978 were destined to fail especially if compared with the successful big-bang transition to the free-market capitalism adopted by the former Soviet Union.

Instead, in spite of what they thought, the situation today is inverted (Yang, J., Zhang, Y. L. 2012). In fact, China, over the last 30 years, has been living a real miracle supported by the rapid growth of economic sector.

These improvements were mainly possible thanks to the rise of a privately-owned manufacturing economy, which counted in 2009 the 40% of industrial profits and the 47% of the total workforce. But how was this growth possible? And which factors contributed to shape this rapid change?

Starting from the book written by V. Nee and S. Opper *Capitalism from below*, the authors analyzed how China's private enterprise economy bubbled up from below, not just being a mere capitalism from above process, driven by the state, as happened in Russia, alternating also a chronological analysis with an analysis made on topics (V. Nee, S. Opper, 2012).

Then, on the second part, the focus shifted more on the cultural and social part of this phenomenon rather than just taking into account numerical data. With the help of a personalized self-made survey, the authors tried to understand how Chinese students, professors and entrepreneurs are perceiving entrepreneurship, if they judge entrepreneurship as a moral art available just for those few people who want to give China (and the whole world) some useful and beneficial ideas or anybody can actually do this.

Finally, the authors tried to figure out how this social and moral dimension linked to entrepreneurship can and will influence the early future of the country, through an inductive analysis with both quantitative and qualitative elements.

LITERATURE REVIEW

During the first years following the bunch of "open door policies" promoted by Deng Xiaoping, it is undeniable the role of central and local governments that, through its politicians, instituted efficiency-enhancing formal rules and policies (V. Nee, S. Opper, 2012).

In particular, the central state, incapable of managing this fast growing situation, decided to adopt a "wait and see attitude" and took the decision to decentralize in part this legislative issue in favor of local governments that started investing both on local infrastructure and on local industrial parks (V. Nee, S. Opper, 2012).

This climate of uncertainty brought to the gradual expansion of household businesses from individual to private owned enterprises (Geti-Hu firms), which pushed political leaders to subscribe new policies in order to slow down its impressive growth (H. Li, 2016). First, the central government imposed that

Geti-Hu firms had to respect a maximum size of seven employees; second, it was even reached the point of threatening private entrepreneurs to be accused of speculation or smuggling in case of long-distance transfers of good and services; third, it introduced a “Three-No” policy of no promotion, no public propaganda and no crackdown for private enterprises (Van Praag, C. M., & Cramer, J. S., 2001). In reality, there were many private ventures with more than seven employees disguised as collective-owned enterprises or public businesses, thanks to local politicians’ parallel interests (Q. He, 2000; B. Naughton, 1994). This phenomenon is better known as “red hat strategy”, intended as an alliance between entrepreneurs and government officials, and marked Chinese entrepreneurship as double entrepreneurship, where the manipulation of institutional rules in an underdeveloped market economy has been identified as a very important mechanism to explain the growth of private enterprises in just a few decades (Chen, W., 2007).

Besides politicians and governments’ role, other sources that helped the entrepreneurial movement in China to rise over the last 30 years may be identified (Yang, J. Y., & Li, J., 2008). The main one was the birth of parallel micro-level mechanisms, mainly constituted by informal norms and social network among close-knit business communities. Those enabled the rise of economic institutions, which represented the first concrete step toward a total shift of powers within the Chinese economy, bringing the state from bureaucratic-allocation system to a market-driven system (Peng and Luo, 2000).

For this reason, it would be simplistic to describe the Chinese rise as a mere capitalism from above process while, instead both the action of the state from above and the endogenous movements from below contributed together into shaping this new capitalistic face of China.

A NEW ENTREPRENEURSHIP

The opening reforms of 1988, the introduction of “free market socialism” by Deng Xiaoping in 1993 that substituted the by now-ancient concept of socialist planned economy, the supportive policies claimed during the 14th and the 15th National Congress of the CCP and, finally, the entry into WTO, all contributed to create a more tolerant environment towards private sector and brought to three concrete as well as crucial changes (Liu, 2003).

First, the political status of private entrepreneurship has enhanced a lot starting from Jiang Zemin’s speech on July 1, 2001. He declared that more and more talented private entrepreneurs would have been accepted into the CCP and would have become government leaders in the coming years (Liu, 2003). This “opening” implied an ideological component of acceptance not only by the central and local governments, but also by all the people, that now look at entrepreneurship in a different way (Liu, 2003).

Second, since 1999, a large number of provincial governments has been issuing documents to support private entrepreneurs in order to help them develop and grow rapidly strengthening their role in economic capacity too (Liu, 2003).

Third, the attitude of people towards private entrepreneurship in practice has changed considerably from before. Entrepreneurship once was interpreted as an occupation for people who could not find any jobs and for those with criminal records; since those years, instead, the social status of entrepreneurs has been referring to someone exposed to global markets with western values, (S. R. Nair, 1996; W. Chen, 2007; Liu, 2003).

Entrepreneurship today in China still tends to be focused more on a competition price and a volume-driven approach rather than investing on quality and efficiency¹. Nonetheless, China has become one of the more powerful and prosperous economies, with the second biggest GDP worldwide and an average annual growth of 7%. The process of innovation of private enterprises, started almost 15 years ago, is still on going and can be considered a success, for its huge appeal to foreign entrepreneurs who wish to export their business in China to make it scalable, under four key elements (Xavier, S. R., Kelley, D., Kew, J., Herrington, M., Vorderwuelbecke, A., 2013):

- Strong presence of state-driven initiatives.
- A huge internal market of approximately 1.3 billion people (with almost half of them living in rural areas), four times bigger than UE and USA.
- The still-strong transformation from a centralized economy to a market economy.
- The abundance of capitals, in large scale invested in the private sector.

The process of maturation of a startup in China is more than two years shorter than US (3,5 years against 5,8 years of a startup in Silicon Valley to reach the same level of growth) and almost the 25% of “global unicorns” are currently Chinese like DJI, Zhong An, Ucar, Meizu, Ele.me, Soguo.²

There is also a high adoption of new technologies, with more than 530 million people today who have a smartphone³ and, despite the tendency of copying other companies’ business model, in 2016 more than one million patent requests were sent to the central government. Thereupon, two programs just began called “Made in China 2025”, which aim to support the innovation in the industrial sectors, and “Indigenous Innovation”, a 15-year program entirely dedicated to advanced technologies that, through investments in R&D and IP, wants to push European realities in China to share their knowledge.

¹ Fonte: @emilabirascid, La Cina dell’innovazione sempre più forte, www.startupbusiness.it, 28/01/2017.

² Fonte: @emilabirascid, La Cina dell’innovazione sempre più forte, www.startupbusiness.it, 28/01/2017.

³ Fonte: @emilabirascid, La Cina dell’innovazione sempre più forte, www.startupbusiness.it, 28/01/2017.

Furthermore, over the last years, the attention of Chinese VCs toward foreign startups is growing. In fact, recently, there have been situations of investments and acquisitions of Israeli, British and Canadian startups, thanks to the several incentives promoted by the government for pushing the internal economic transition to a more global scenery characterized by technological innovation (Su, C., Manhong, L. M., Jiani, W. J., 2016).

RESEARCH METHODOLOGY

The objective of the paper is double, on one side it is important to understand how entrepreneurship is perceived by some relevant figures inside the Chinese society (e.g. students, professors and entrepreneurs) and, on the other hand, try to identify the influence of the entrepreneurship on the future of the country.

To understand which tool was more appropriated for the research, the authors conducted a multi-level top-down analysis where, at each corner, they had to choose between two different alternatives the one that fitted the best with the outcome they wanted to get.

Considering that the final goal of this paper was neither confuting nor supporting an existing theory but understanding the social reasons behind a certain phenomenon, in the end, the authors opted to proceed with an inductive approach.

In fact, an inductive approach have allowed them not only to get some specific behavioral information that otherwise would not be possible to take out from normal databases, but also to catch those shades in answers that go beyond a normal “yes or no” choice and allowed them to build a complete scenery. Then, narrowing the funnel, the authors faced the decision whether to proceed with a quantitative or qualitative analysis. First of all, the qualitative aspect was essential because they were not simply looking for numerical data but, above all, they needed other aspects like feelings, opinions and the reason behind certain choices rather than others, and to get that they would have structured a broader method (Temple, Bogusia and Young, A., 2004). In particular, the obvious tool they should have selected in order to continue under this approach was the interview: in fact, with face to face, phone or skype interviews the authors would have had the possibility to really dig inside his interlocutors’ soul. On the other side, a quantitative approach would have made the authors proceed with a bigger data sample, enabling them to proceed with more reliable information. In this case, making a survey would have been the perfect solution to get useful data quicker and in a more structured way (Temple, Bogusia and Young, A., 2004).

For this reason, the authors have decided for a survey with few questions, in order to avoid “lazy and unreliable answers” because of its long duration, but more qualitative and open to interpretation.

Finally, once completed and verified the contents of the survey with some students aspiring to become entrepreneurs, entrepreneurs and professors, the authors decided the channels to use for the survey. While they have forwarded it on Facebook with the few Chinese students currently studying in Europe and belonging to their network, authors asked them to post the survey on private Chinese people messaging groups. They sent them the survey by email, considering the so-called “Chinese wall” which does not allow people in China to use engine search, websites and social network like Facebook or Google, asking them to share it with local friends, students, professors and entrepreneurs. The survey built was structured in three main parts:

- The first part is an introduction that has the scope to define the profile of the people who filled in the survey. These questions are particularly important for understanding how people with different background and in different moment of their life look at entrepreneurship and its implications.
- The second part is equally focused on respondents’ attitude but over the next 5 years. If they want to become entrepreneur, if they already are entrepreneurs, in which field they would like to launch their own company and especially what pushed (or will push) them into entrepreneurship.
- Finally, the last part converge on a wider concept of entrepreneurship. What they actually think “being entrepreneur” means, if they consider China a good place where to start up a venture and if they think this phenomenon will grow up more in coming years.

Under each part, the authors proposed the objective results got from the respondents, followed by personal comments and a subjective analysis. The scope was to direct them on a wider scenery, always referring to the analysis done in the first part of the thesis, in order to try empirically to understand their sensations, how can they fit and how can they influence the early future.

RESULTS AND DISCUSSION

This paragraph is focused on the discussion and the analysis of the data obtained from the survey, and, as mentioned above, it is structured in the following three parts: the profiles; being an entrepreneur; the perception of Chinese environment.

The first questions of the survey had the unique goal to identify the profile of the people surveyed. The authors tried to diversify as much as they could the profiles they sent the survey to (even if students remained the first target in quality of possible future entrepreneurs), in order to get different answers that made possible an interesting comparison.

Among the 87 people that replied: 2 are entrepreneurs; 10 are employees from Shandong Changlin Deutz-Fahr Machinery Company Ltd; 25 are students in China; 46 are student outside China; 4 are professors.

The biggest percentage of interviewees are students and, among them, almost 2/3 are Chinese students outside China; this result was possible because the main and more immediate channel the authors used was Facebook. Moreover, they helped them a lot because agreed to share it on Facebook groups and pages only made by Chinese students outside China, and also on private channels (like personal conversation on We Chat, one messaging app that works like WhatsApp, widespread in China) with other Chinese friends.

Some of the questions were addressed just to interviewees that are currently running their own company. Anyway, among the 87 interviewed people, not only the two entrepreneurs replied positively, but also one Chinese student who is studying in China.

Respondents had the opportunity to identify their activity with a focus on the related industry and the inner disruptive characteristics. Unfortunately, considering that just three people filled in this part, it turned out to be quite difficult extrapolating and identifying some trend that could match or not with the different studies and researches previously taken into account.

The first business idea concerned the automotive sector. It aims to put into communication unemployed people with a young target of people that go to parties with their own car but, at their return, they don't want to drive for safety reason. So, using the GPS within the APP to geo-localize their position, and selecting the arrival place, the software behind send a request to the closer "driver" that must decide in a very short time whether to accept the call or not. Then, equipped with a sort of electric bike (very cheap and common in China), he/she reaches the client, put the bike inside the trunk, bring the people home and after that, take the bike out and marks himself available on the APP for the following ride.

Then, the second business is related to financial services industry, and the idea concerns innovative payment methods; in particular, this is a platform that allow people to pay in normal shops simply scanning a QR code directly connected with the bank account. Today the payment method in China is already very digitized and, for example, WeChat, the most common messaging app in China, also enables its clients to pay in shops as well as supermarkets and restaurants through a QR code technology.

Finally, the last one is the student's idea. He/she is still working on it, and aims to launch it as soon as possible in more agricultural centers where the digitalization rate is still not so high, but, at the same time, the available market is huge. In a few words it consists in a platform that connect restaurateurs with delivery service companies; when the client enter the APP for choosing the dishes, in the

meantime it send a notification to the restaurant. At this point, the restaurant selected has two minutes time to accept or refuse the order. When the order is accepted, the restaurateur himself calls the delivery service company for the immediate availability of a delivery boy and also gives a waiting estimation to the client, freezing the payment. Once the food is delivered, both parts confirm it on the app, the money are unlocked and he must give a vote and writing down a feedback for concluding the transaction.

Furthermore, it has been possible to obtain few indications about Chinese people's attitude toward entrepreneurship. In fact, more than the 50% (51 out of 87) of the interviewees declared that they would not mind to start up a company in the future.

More in details, exactly 32 Chinese students who are currently studying abroad out of 46 that completed the survey have expressed their willingness; likewise 15 students in China, both the entrepreneurs who, in this way, have confirmed their choice and also 2 employees from Shandong Changlin Deutz-Fahr Machinery Company Ltd.

As far as the industries, the respondents that previously expressed their willingness to start a company in the future had at this point the opportunity to choose up to two preferences among the "most profitable industries" listed. In total, the authors have picked up 89 answers.

The most chosen has been Tech with 43 preferences, in line with the guidelines drawn by the government that wishes to boost the technological sector for becoming the first actor worldwide in this field. Anyway, this data can be misunderstood because lately, most of the new companies are APPs or websites and in this sense fall within Tech. Right after Tech, Healthcare got 16 preferences, Energy got 13 and Food got 12. Then, Financial Services has been chosen by 2 people and "other" collected 3 preferences, while a bit unexpectedly nobody chose Automotive.

Moreover, the interviewees were also asked to shortly describe with a few lines a draft of their business idea. This way the authors also collected some interesting ideas but still at a very seed stage, without neither structure nor a business plan.

A few people mentioned their willingness to enter the B2B sector, through creating a particular software for gaming companies that would enable them to share virtual coins. Another respondent expressed his willingness to break into the payroll industries by creating a software that somehow would make the job easier. Then, one respondent wrote down his intention to prototype one personalized travel box with toothbrush, toothpaste, body gel, and razor to be carrying around in every situation. Moreover, another Chinese student mentioned her intention to build up a delivery service that would enable local producers to sell their products all around the country and, eventually, one person reported she would like to create one platform where people can share their hobbies and then meet to practice them together.

Finally, the authors opted for ending the paragraph with two questions focused on motivation, through which they aimed to understand why so many young people (almost the 50% according to the previous questions) want to become (or in case would become) entrepreneurs and what the figure of entrepreneur is associated to within the Chinese society.

Even if in Europe over the last years is taking off the social aspect of entrepreneurship, the tendency to create something whose final scope is to improve its users' lives, in China the way people look at entrepreneurship is very different.

In fact, just three people chose the option "Solve a social problem" and two chose the option "other" while all the others opted for "Profitable idea" as the main reason why launching a startup. They look at entrepreneurship just as a simpler and quicker way to make money.

Anyway, the possibility that they want to start that career because of their parents exists. In fact 26 people declared that their parents are (or were) entrepreneurs, and 24 out of 26 are now students and each of them previously affirmed his/her intention to start a company one day.

For this reason, according to these data, having parents already in this business may cover a key role for pushing people to become entrepreneurs.

The last part of the survey is based exclusively on the perception of entrepreneurship in China both on an economic side and on a more moral point of view. Starting from analyzing the economic part, the authors tried to understand which will be the future trends that may characterize Chinese entrepreneurship over the next few years according to who will cover a prominent role.

First of all, and it is not a surprise, each of the 87 surveyed people think China is a great country to launch a company.

Many people pointed out the total available market in China as the main reason. They do not think, or at least they did not write, that the market is saturated by the huge number of new ventures that grow up every year supported by the large availability of resources owned by Venture Capital firms. Rather, the almost 1.5 billion people who lives there is the most impressive statistic that push entrepreneurs with a simple idea in turning it in real business, by considering easier reaching the break-even point than in Europe and in US, as far as, of course, the business is good enough and well structured.

Others, instead, a little minority of the total, probably referring to themselves, indicated the presence of right contacts and a proper environment made by family and friends as one of the key factor that makes starting a business in China way easier and with better future expectations than in Europe or US.

Eventually, the last session is about a general feeling of morality linked to the role of entrepreneur in the actual society. The authors decided to structure it with three open questions because they

considered too reductive taking out the right information for enriching the survey just with multiple choice or “yes or no” questions, which would have made much more difficult to understand the real motivations behind the answers. Anyway, open questions are also risky in a certain way because either people may not provide satisfied answers or not enough explained, shifting from the real scope. They consider the results got from these questions extremely important for the research.

Most of the respondents, except the professors and a few students, do not consider the figure of entrepreneur and the concept of entrepreneurship as very stressed today. Maybe because in China people still breathe and perceive entrepreneurship like the novelty despite their story full of restriction and possibilities denied, or because they are educated and culturally moved by different principles, but the evidence is that entrepreneurship for them is mostly considered as a mere opportunity and nothing more.

Entrepreneurship is not seen as a discipline for few inspired people, but as an employment that can be very profitable, and it does not matter if some Venture Capital firms are taking the European and US way, entrepreneurship in China is just at the beginning and it will keep growing over the next years, taking advantage from the huge market opportunities.

Despite this concrete vision, and despite what the authors expected, almost half of the interviewees consider it a bubble. It is true that many of them are fascinated by private ventures, but the majority is aware about the huge amount of money handled by VCs. Most of the time, as well as Accelerators and Angel Investors, they end up investing thousands and thousands of dollars in companies at their initial phases, with just a structured idea, a promising team and nothing more, making money by selling their part of equity at an higher price on a series A, B, C round. However, when this bubble will explode and investors will not be willing anymore to put money in these companies, the investors that at that time will own a percentage of this companies' stake will inexorably fail, collapsing the market.

CONCLUSIONS

After all these several considerations, the authors think that on one side it is very fascinating to see Chinese adults' propensity to this discipline: supported also by the right environmental conditions, many of them grow up with the clear idea of becoming entrepreneur one day.

But, at the same time, they look at this fast-growing attitude with a bit of perplexity, worried about the lack of morality behind. In fact, the unique scope behind entrepreneurship seems to be a shortcut, taking advantage of the several possibilities offered by the market, to make money and have a successful career sooner.

If taking Business School ESCP Europe as starting point, just around 100 students during the Fall Term 2016 and 40 during the Spring Term 2017 attended a course related to innovation and entrepreneurship, and just a small percentage of them actually did it for obtaining important insights and the right knowledge in order to set up his/her private company.

On the contrary, basing authors' assumptions on these few data, the situation in China looks different. In fact, even if the authors could count only on a group of 87 people, and each person with a medium-high education level that may distort a bit the real situation, almost the 50%-60% of them expressed more or less covertly their intention to open up a private venture in the future. In particular, all these data confirmed how the perception of entrepreneurship has been changing a lot in the last 40 years and now it is massively diffused in China.

According to the authors, today, making a profitable company is not enough anymore, on the contrary this is just a further step while building up a company, launching something that make its users' lives easier and better. The added value delivered to clients should be always the heart, the hub around which building the idea step by step. Starting from this point of view, entrepreneurship get in a moral dimension where not everybody should be part of, but just people with a sort of vocation, which make it not only for money, but mostly for making the world a bit different. And what can be deduced from these few final questions of the survey is that in China, the role of entrepreneurs and entrepreneurship are still perceived in a more practical meaning.

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FORMAL AND INFORMAL SMALL BUSINESSES: CHARACTERISTICS, CHALLENGES AND PROMOTION

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ABSTRACT

This paper aims to address the differences in characteristics and challenges of Palestinian formal and informal small businesses. In addition, it discusses needed policies to foster these businesses. This exploratory paper combines a literature review with a mixed-methods study. A survey with a sample of 300 formal and informal small businesses in the Palestinian Territories (West Bank and Gaza Strip), and in-depth interviews with representatives from government, private sector, and microfinance institutions were conducted.

Findings show that formal and informal small firms operate under very unlike constraints. Most obviously, formal employers bear a number of regulatory costs that unregistered firms can typically avoid. These costs include licenses, bureaucratic approvals, and other fees. As well, findings show the significant differences between formal and informal businesses in terms of organization, employment, production, finance and sales. In addition, results show significant differences in the challenges formal and informal small businesses are facing. The informal small businesses are facing problems in access to market, access to finance and access to information.

A more complete understanding of formal and informal firms may lead to adjustments in government policies to enhance their unique contributions to economic growth. Access to information about regulations, access to finance, and access to markets shall be made available to both informal and formal businesses at minimum cost. Policy makers must ensure that the compliance procedures associated with, e.g. R&D and new technologies, are not unnecessarily costly, complex or lengthy.

Keywords: Small Business; Formal; Informal; Characteristics, Challenges; Policies; Palestinian Territories.

INTRODUCTION

In the Palestinian Territories, political instability, and the restrictions on movement and access to markets, remain the binding constraints in the investment climate, resulting in uncertainty, risk, increased costs for businesses and investors, and the fragmentation of economy (World Bank, 2014b; and MAS, 2014). As a result, private investment in the Palestinian Territories remains far from sufficient to fuel adequate rates of economic growth, create enough jobs and reduce unemployment.

Informal and formal small businesses are often perceived as being the same, while in reality there are significant differences in their characteristics and challenges they are facing. This exploratory study aims at identifying the characteristics of formal and informal businesses in the Palestinian Territories in terms of size, ownership, sector, gender, employment, and location. As well, the research study aims at shedding light on the main challenges that formal and informal businesses are facing.

Next sections present research problem, related theories of informal and formal small businesses, the methodology used to identify the main characteristics, challenges and obstacles facing these businesses. Then, policy recommendations were presented to foster these businesses.

RESEARCH PROBLEM

There is an ongoing debate on the significance of the informal sector in the Palestinian Territories (MAS, 2014; Fallah, 2014b). Many authors do highlight its economic role in stimulating the growth of the market economy, promoting a flexible labor market, promoting productive activities, and absorbing retrenched labor from the formal sector. Others claim that informal labor has become a convenient means of pursuing the global agenda of liberalization. As both sectors (formal and informal) significantly contribute to the Palestinian economy, understanding their characteristics and challenges will be vital to design the appropriate policies to foster these businesses.

THEORY DEVELOPMENT

The size of grey economy varies widely across countries. A study in the MENA region reveals that informal businesses produces about 27% of its GDP and employs 67% of its labor force informally (World Bank, 2012), meaning that more than two thirds of all workers may not have access to health insurance and/or are not contributing to a pension system that would provide income security after retirement. In the Palestinian Territories, there is a lack of available data on the contribution of the informal sector to GDP and employment (Fallah, 2014b).

Informal sector could be defined as the unregulated, non-formal portion of the economy that produces goods and services for sale or accepts other forms of remuneration. In effect, the term informal economy or grey economy, as it is often used to symbolize the informal sector, refers to all economic activities by workers and economic units that are not covered or are insufficiently covered by formal measures (Becker, 2004; Feige, 2016). The informal economy is largely characterized by: (1) low entry requirements in terms of capital and professional qualifications; (2) small scale of operations; (3) skills often acquired outside of formal education; (4) labor-intensive methods of production and adapted technology (De Soto, 2000; ILO, 2002; Bruhn and McKenzie, 2014).

For the purpose of this study, informal small business is defined as an economic activity that works from home, on the street, or in premises, that is not officially registered at any of the governmental or semi-governmental institutions. As explained below, a large informal sector tends to impede the rate of economic growth via other effects. These include lower productivity due to lack of economies of scale, and distorting policies conducive to growth due to extensive tax evasion and weak linkages with financial markets. In the same vein, government's ability to increase tax revenue, for instance by modifying tax rates, might be ineffective in economies with poor tax compliance such as the one in the Palestinian Territories.

Castells and Portes (1989) and Portes (1994) have highlighted noncompliance with government regulations as the main identifier of the informal sector. In this regard, informal firms generally include all employers and self-employed workers who fail to comply with state regulations, including firm registration, tax rules, and labor law (Pratap and Quintin 2006). Therefore, the informal sector usually includes all economic activities that contribute to the GDP but are not officially reported (Schneider 1994; Feige, 1997; ILO, 2014; Kus, 2014; La Porta and Shleifer, 2014).

A large informal sector usually reflects substantial government revenue losses because of tax avoidance. This would likely lead to a lower level and quality of public services (Schneider and Enste 2000). Poor public services and an excessive tax burden might therefore aggravate formal businesses and decrease their trust in public institutions, as they see little benefit to paying taxes. The outcome of this repercussion decreases the incentive to join the formal sector, leading to a vicious circle of expanding the informal sector and low provision of public services (Torgler and Schneider, 2007; McCaig and Paycnik, 2014; McCaig and Paycnik, 2014).

Some researchers link informality to firm characteristics such as low productivity, small firm size, and hiring of unpaid family members (Perry et al. 2007). Others have focused on the social protection dimension with special emphasis on employment. The concept of informal employment in the literature, however, is not limited to employment in informal firms, but includes regulations requiring

firms to pay social security contributions, give paid vacations, and give severance pay upon termination of employment (McCaig and Paycnik, 2015; McKenzie and Woodruff, 2014).

Loayza (1986) highlights the negative impact of a growing informal sector on productivity via the lack of economies of scale. When operating informally, firms are likely to maintain small-scale operations in order to decrease the probability of government detection (Pratap and Quintin 2006). In addition, lack of access to credit, usually due to insufficient collateral, tend to preclude expanding informal business operations (Straub 2005). In addition to lowering productivity, a larger informal sector might impede growth by distorting economic policies.

Specifically, a large informal sector might render monetary policy less effective as informal firms enjoy lower connection to the financial system. This is also true regarding the fiscal side: decreasing the tax rate might have a less stimulatory effect on economic growth, and increasing the tax rate might have a less restraining effect on growth or inflation, due to excessive tax evasion (Eilat and Zinnes, 2002; Martin and Harrison, 2014). In many developing countries, informal workers often operate in a poor environment such as safety, health with lower pay and inadequate workers' rights and social protection (ILO, 2002). Therefore, a large informal sector tends to impose social costs.

Fallah's (2014b) study shows that the majority (about two-thirds) of informal Palestinian entrepreneurs believe that there is no benefit to join the formal sector. Moreover, the majority of informal entrepreneurs stated that they are not willing to join the formal sector. These findings clearly indicate that, from the point of view of informal entrepreneurs, the benefits of joining the formal sector do not outweigh the entry cost (registration cost) and other costs such as direct and indirect taxes or employees' benefits and minimum wage (Fallah, 2014a). Thus, staying in the informal sector could be a profit-maximizing decision.

In the Palestinian Territories, formal entrepreneurs are more educated. About 27% of them having at least 13 years of education relative to 12% for informal entrepreneurs. In terms of type of economic activity, most notably, the construction sector is disproportionately informal, constituting around 12% of the informal sector but only about 4% of the formal sector. As for the manufacturing sector, the majority of informal manufacturers operate in the wearing apparel and stone cutting industries. Formal manufacturers, on the other hand, produce mainly metal products and furniture (World Bank, 2013).

According to the Palestinian Central Bureau of Statistics (PCBS, 2014), women in the Palestinian Territories form half of the society, which consists of around five million in Gaza Strip and the West

Bank, albeit the female participation rate of the labor force is 19.4%. Nevertheless, women entrepreneurs increasingly run their own enterprises; however, their socio-economic contributions and entrepreneurial potential remain largely unrecognized. They are concentrated in informal, micro-size, low productivity and low-return activities. One reason behind the fact that women's contribution is not adequately recognized in the Palestinian Territories would be that in the majority of cases, women businesses are family-run and in the informal sector, with many women involved as unpaid family workers (UN Women, 2011).

RESEARCH METHODOLOGY

Research Setting

Palestinians have no control over sea, air or borders (Abuznaid, 2014). West Bank is divided, according to Oslo Agreement, into three different administrative areas (Abuznaid, 2014; ILO, 2012): Area A- under Palestinian administrative and security control. This area includes civil gatherings in major cities. Area B- under Palestinian and Israeli security control. This area includes the communities around cities and towns. Area C- under full Israeli control. This area is a state land outside the inhabited areas. Area C comprises 61% of the Palestinian land under which Palestinian Authority have no control.

Although it is difficult to verify estimates of the size of the informal sector in the Palestinian Territories, there are 152,262 informal workers, representing 36.3% of total employment in the private sector (PCBS, 2013). Given that the vast majority of informal firms are extremely small (1-2 workers), there are about 100,000 informal firms constituting 49.7% of the total number of companies (PCBS, 2013). Regionally, 45.3% of firms in the West Bank are informal compared to 65.7% of enterprises in the Gaza Strip. The majority of informal and small formal firms report that their market is limited to their locality. Informal firms, however, are un-burdened by regulations and taxation, but have more restricted access to finance, export markets, and government contracts (Fallah, 2014a).

Research Method

The research team used both the quantitative and qualitative methods. A questionnaire, as a quantitative tool, consists of four parts. Part 1 covers the profile of the business (formal/informal and location). Part 2 discusses the characteristics of the business in terms of (location, ownership, bookkeeping, type of premises, and number of employees). Part 3 enquires about the main challenges that the formal/informal small business is facing in terms of movement, supplies, competition, etc.

Finally, Part 4 questions about the policies needed to foster these businesses such as access to market, and access to finance.

The research team developed a sampling frame for formal businesses with the assistance of the Federation of Palestinian Chambers of Commerce, Industry, and Agriculture (FPCCIA) in West Bank and Gaza Strip. A convenience sample of 150 businesses (100 businesses in West Bank and 50 businesses in Gaza Strip) were selected and approached. The database of the FPCCIA show that there are 60,000 members while only 15,000 (two-third are located in West Bank and one-third are operating in Gaza Strip) of these firms are effective small sized firms (i.e. employing between (4-25) staff and paying the fees during the last three years). Based on this fact, the research team aimed to approach 1% of the effective members as a minimum convenience sample size, which is 150 formal firms. The same number were chosen for the informal businesses (i.e. there is no clear sampling frame for informal businesses).

The research team developed open-ended questions to understand the context of the small formal and informal businesses working in the Palestinian Territories. The deputy minister of National Economy; the deputy head of VAT department at the Ministry of Finance, representatives from chambers of commerce and industry, representatives from business associations and representatives from micro-finance institutions were interviewed.

The research team were keen to receive 300 clean questionnaires. Collected questionnaires were coded and entered into the SPSS software. Means and percentages were used to identify the characteristics, challenges, and needed policies, while t-test and one-way ANOVA are used to assess any significant differences in the main challenges and needed policies between the formal and informal businesses.

RESULTS AND ANALYSIS

This section presents the results of the survey and semi-structured interviews. The results present the characteristics and challenges facing formal and informal small businesses.

Characteristics of Formal and Informal Small Businesses

Results of the survey show that 78 firms (26% of the respondents) are working in the industry sector; 94 firms (31.3%) in the trade sector; 88 firms (29.3%) in the service sector; 26 firms (0.9%) are in the handcraft sector; and only 14 firms (0.5%) are working in other sectors. PCBS (2014) statistics show that industry contributes to GDP by (13.9%); trade contributes by (19.2%); service by (30.6%);

construction contributes by (8.3%); and other sectors contributes by (28.0%). Almost (5%) of the respondents are using their homes to do business activities; (76.3%) are using business premises (i.e. own or rent); (4.3%) are based on farms; (5%) are using streets and (12.7%) do not have any fixed address.

Results show that 226 firms (78.6% of the respondents) are located in cities; 42 firms (14%) are located in villages; while 22 firms (7.4%) are located in refugee camps. There is a phenomenon of moving businesses to cities because the economic situation is better than in villages and refugee camps. As well, results show that 240 firms (80% of the respondents) are located in area 'A'; 16 firms (5%) are in area 'B'; and 44 firms (15%) are in area 'C'. Palestinians, in general, prefer to work under the Palestinian control where getting licenses in area 'A' and 'B' are much easier than getting licenses in area 'C' which need special approvals from the Israeli Authorities. Most of the businesses based in villages and refugee camps are working informally and selling mainly groceries and bakeries.

Almost two-third (77%) of the respondents are male; and (23%) are female. The gender situation in the Palestinian Territories is based on the traditional, and socially accepted, concept developed from both tribal cultural values of the Arab region and Islamic values. While increasing numbers of women have taken up the role of the worker as a coping strategy required for the family survival, it neither changes their traditional role of caretaker at home, nor lessens the burden of that role. They are simply to assume the double burden as some women, especially those with less education, feel it disempowering that they have to work outside home out of necessity

Results show that (31%) have written contracts without fixed durations; almost the third have verbal agreements with the employers; and another third have no contract at all. Half of the respondents are paying salaries to their employees on monthly basis; and third of the respondents are paying on daily basis or per hour; and (17%) per job or per task. Unfortunately, informal firms do not pay social security contributions, give paid vacations, or give severance pay upon termination of employment

Respondents were asked about their bank account. Results show that (56%) of the respondents have banks account in the name of their business; while (44%) do have banks accounts in their personal names. All informal and due un-registration, they do not benefit from banks' loans or other financial schemes. As well, respondents were asked if they have a bookkeeping or not and what type of bookkeeping they do have. Almost (30%) of the respondents do not have any written bookkeeping documents; while (20%) are having informal records; (41%) are using simplified accounting; and only

(9%) of respondents having detailed formatting. Informal small businesses do not distinguish between businesses and personal expenses.

The majority of informal small businesses are selling their products/services in the same location as the majority of them are working in handcraft, service and trade of consumable products. It is worth to mention that the Israeli–Palestinian trade is significant for the Palestinian economy. Palestinian purchases from Israel account for about two-thirds of total Palestinian imports and Palestinian sales to Israel account for about two-third of total Palestinian exports as well. Formal businesses are benefiting from the trade exchange with Israel as official invoices are needed for that.

Both formal and informal small businesses share the same reason behind choosing their businesses. Almost third of the respondents mention the family tradition as the main reason behind choosing their business activities; the other third mentions the profession they know. While (13%) choose, their business activities as they can receive better income; and almost (17%) choose their businesses as they can receive stable return.

Both formal and informal small businesses share the same source of financing. Almost (83%) of the respondents express the main sources of financing are the family; nearly (5%) get their finance from neighbors or friends; and (10%) get finance from banks or microfinance institutes. Reasons to borrow money from families and friends are due to the strong family and social ties from one hand and due to the high interest rate, and high collaterals asked by banks and microfinance institutions another hand.

Challenges Facing Informal and Formal Small Businesses

As shown in table (1), there are significant differences in the challenges facing formal and informal small businesses except in the lack of space, and organization and management difficulties. Results indicate that informal businesses are facing higher challenges in the supply of raw materials, finding customers, competition, access to finance, access to machines, revenues, movement, and business environment.

These challenges extend from internal as stated by Loayza (1986) and Perry et al. (2007), and external pressures as stated by Castells and Portes (1989) and Portes (1994) to legal and survival issues as stated by Schneider (1994), Feige (1997), ILO (2014), Kus (2014), and La Porta and Shleifer (2014). Results show that informal small businesses suffer lower revenues and higher financial difficulties than formal small businesses in the Palestinian Territories as stated in the World Bank report (2012). As well, informal small businesses seem to be struggling with business financing as many respondents indicate the limited access to finance or loans as stated by Fallah (2014a).

Table (1) Main Challenges			
Challenges	Business	Mean Differences	Sig.
Supply of raw materials	Informal vs Formal	.68879	.000*
Lack of customers	Informal vs Formal	.82717	.000*
Too much competition	Informal vs Formal	.78667	.000*
Financial difficulties	Informal vs Formal	1.02919	.000*
Lack of space	Informal vs Formal	.27778	.278
Lack of machines	Informal vs Formal	.45222	.001*
management difficulty	Informal vs Formal	-.00899	.927
Too little revenue	Informal vs Formal	1.03859	.000*
Movement	Informal vs Formal	.65040	.000*
Laws and regulations	Informal vs Formal	.68879	.000*

Note: Sig. is less than or equal 0.05

On the contrary, formal small businesses are having an edge over informal small businesses in raw material's supply, customers' reach, lower competition, better movement, and benefiting from the incentives elevated by the national laws and regulations.

In addition to the above list of challenges, the results of semi-structured interviews show other challenges facing Palestinian small businesses as well. High competition between businesses themselves and from imported products especially from China. As well, the Palestinian businesses are suffering from outdated laws and regulations as mentioned by Abuznaid (2014). Therefore, these enterprises are working in a weak legal environment and poor financing sources for starting new ventures. The difficulty to access new markets and new developed technologies are also considered main barriers facing Palestinian businesses.

Other challenges are the inability of banks to access information on businesses from governmental authorities with regard to enterprise registration and authorized signers and the inability of banks to enquire about deferred checks drawn on customer accounts and presented for collection by other banks. Poor level of financial statements reporting by businesses and poor understanding by the owners of the significance of preparing economic feasibility studies and business plans.

Policy Recommendations

This section discusses the needed policies to foster the formal and informal small businesses. Table (2) indicates that there are significant differences in the needed policies recommendations as

perceived by the formal and informal small businesses. This indicates that the one size fits policy will not work in this case.

Table (2) Recommended Policies			
Needed Policy	Business	Mean Differences	Sig.
Technical training	Informal vs Formal	.81000	.000*
Managerial training	Informal vs Formal	.55000	.000*
Supplies	Informal vs Formal	1.27000	.000*
Access to machines	Informal vs Formal	1.01000	.000*
Access to loans	Informal vs Formal	1.12000	.000*
Access to Information	Informal vs Formal	.32000	.017*
Access to large businesses	Informal vs Formal	.38000	.011*
Problems with Government	Informal vs Formal	.43000	.004*
Litigations with competitors	Informal vs Formal	.82687	.000*
Security and movement	Informal vs Formal	.81000	.000*
Interaction with employees	Informal vs Formal	.55000	.000*

Note: Sig. is less than or equal 0.05

As shown in the above table, there are significant differences between needed policies as perceived by the informal small businesses and formal small businesses. Informal businesses ask for policies to foster supplies, access to machines and access to finance. While formal small businesses ask for policies to foster training, access to information and access to large businesses. As well, formal small businesses ask to ease the movements and interactions with employees.

Irrespective of formality, the Palestinian government in liaison with the local authorities, and private sector institutions shall record the informal businesses so that their operations can be regulated and monitored especially on compliance issues. As well, the Government shall put in place mechanisms and systems to ensure the fundamental labor rights to all workers and provide better infrastructure and working environment. The Government shall put in place policies that allow informal firms to access soft loans. In case stringent measures like “collateral security” are removed or harmonized, that will enhance the informal sector to recapitalize its businesses. This should culminate in business expansion and growth.

All these policies are mutually interacted, since they work together; if some are omitted, the remaining policy changes may not succeed in fostering the Palestinian informal and formal small businesses. For example, if the government manages to simplify the registration procedures while banks do not

respond to the needs of businesses or these businesses do not build their internal systems, then the results will not have a solid impact.

IMPLICATIONS OF THE STUDY AND RESEARCH LIMITATIONS

The Palestinian informal and formal small businesses have potential to grow into the more sustainable way and help improve Palestine's precarious unemployment levels which in turn would improve welfare of its citizens including standards of living. The informal sector seems to embrace all facets of economic activity though with a high tendency for a high level of non-compliance with the business best practices. The size, non-regulation, low cost, and low capital requirements makes the informal sector a more favored choice for those who are out of formal employment or who after completing some form of training or equipping themselves with some skill, fail to be absorbed into the formal sector.

Both formal and informal businesses are important to the economy of the Palestinians. Political risk is an external pressure and is considered a major risk facing Palestinian businesses whether they are formal or informal. Other challenges rather than political risk include low income and high competition because of the market size limitations and low variety of products (i.e. low differentiation); in addition to the outdated laws and regulations.

A larger sample size is needed to cover other neglected sectors such as home-based businesses or large-scale businesses, which were not included in the study. Also, does it worth to inspire informal businesses to move to formal ones?.

CONCLUSIONS

Obtaining a true picture of the size and dynamics of the informal economy has proven to be a daunting task. There is a lack of studies, in the Palestinian Territories, dealing with how violent conflict impacts at the micro-level on firms working formally or informally. This research paper addresses this lacuna. There is a wonder whether the informal businesses might prosper in the long term in the Palestinian Territories or if it should be curbed as a hindrance to development. Paradoxically perhaps, the sector contains both entrepreneurial spirit and the struggle for subsistence. From one perspective, informal businesses have an unfair advantage in avoiding taxation. On the other hand, these businesses lack legal rights, and are unable to access public services or formal sources of credit. So, what is an appropriate policy response?

The solution is neither to encourage nor suppress informal economic activity but rather to reduce barriers for all business (formal and informal). Opening routes to formality creates new opportunities for the poor to realize their potential and raise national competitiveness. Acquiring formal status allows entrepreneurs to access formal markets, invest with security, obtain new sources of credit, and defend their rights. An effective route to formality, however, requires more than registration and enforcement. It requires the tearing down of barriers at the origin of informality to improve the business climate for all entrepreneurs. Lowering barriers increases business opportunities while facilitating compliance.

The paper identifies the significant differences in characteristics of Palestinian formal and informal small businesses in terms of location, access to finance, sales, and import. The paper, as well, outlines the challenges that need to be taken seriously before recommending policy instruments. Finally, the paper recommends a list of policy instruments to foster the informal and formal small businesses in the Palestinian Territories such as training, access to markets, access to finance, access to information, and changing laws and regulations.

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SPECIAL ECONOMIC ZONE POLICY IN POLAND

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ABSTRACT

Special economic zones (SEZ) have been increasingly popular as investment policy tool in many countries. They exist in many varieties and serve various objectives. Polish SEZ regime and policy differ from those in other countries. They were established primarily to ease severe unemployment problems. These came out in some regions when transition from command to market economy started. Later when the tensions eased off, the policy accent was put on stimulating the competitiveness and innovativeness of Poland's industry.

The particular goals set for SEZ were ambitious but mutually incoherent. Besides they were neither linked with requirements for investors nor could be monitored by the government due to the absence of necessary data about economic performance of enterprises benefiting from public support. Therefore for politicians and administration only the number of new jobs in SEZ really mattered as a measure of policy success.

SEZ are regulated and operated by the State. Therefore they offer similar benefits and performance requirements are also the same. Tax exemptions are the feature the investors appreciate the most. After Poland's accession to the EU, the SEZ regime became less generous for them, more complicated and more government-led. On the other hand if an investor was considered important enough, he could have the zone established where he wanted, also in locations which did not need any developmental support.

FDI in SEZ is a significant portion of FDI stock in Poland. Looking at the number of projects, domestic and foreign investors benefited equally from zones. However, foreign enterprises dominated when it comes to invested capital and the number of employees.

Keywords: Special economic zones, public aid, emerging markets, investment incentives

INTRODUCTION

Special economic zones (SEZ) are investment policy tools (UNCTAD 2018). They have been used for years by countries at different development levels, in various forms, to achieve different objectives, and with diverse effects (e. g. Farole, 2011; Farole and Akinci, 2011; Aggarwal, 2012; Cirera and Lakshman, 2014; Tao *et al.*, 2016). Estimates of their popularity vary. The Economist (2015) describes

over 4,000 SEZs in 73 countries, while the World Bank (2008 p. 7) mentions more than 3,000 SEZs in 135 countries¹. Nowadays, SEZs have become best known for the positive role they played in transforming China into a market economy and opening it up to the world and to technological modernisation, which has been noted even in some economics textbooks (Kasper et al., 2012). This is why Chinese experiences are often used as the lens through which we look at solutions adopted in other countries, especially in Asia and Africa (ADB 2015, Farole and Akinci, 2011).

Poland is an exception not included in such comparisons. The brief pieces of information available in foreign sources are outdated and inaccurate (e. g. World Bank 2008, p. 31, p. 68). This lack of interest among academics and international institutions is perplexing. The legal grounds for establishing SEZs were laid down by the Act on SEZs adopted in 1994 (*Ustawa...*, 1994) and amended several times in subsequent years. Since then, they have become visible components of the Polish economic landscape and important incentives in the hands of the government. Despite this fact, their economic achievements which have accumulated over all these years are not widely known, as most publications are available only in Polish. Some exceptions include Dorożyński *et al.* (2016, 2017a, 2017b), Ciżkowicz *et al.* (2015), Jensen and Winiarczyk (2014), and Jensen (2018). They discuss the effects of SEZs in the creation of jobs or attracting FDI.

The goal of this policy paper is to familiarise readers with the operating principles of SEZs in Poland. This will be done by providing an overview of the regulations and how they are used to stimulate investment within the framework of regional and industrial policies. The solutions adopted are very different from those deployed in developing countries and in developed economies. They are an original “Polish contribution” to state interference in the market. They show that investment policy consists of pragmatic, not necessarily coherent decisions, and it originated in political economy rather than in economic principles.

SEZ OBJECTIVES

SEZs have been active in Poland since 1995. The Act on SEZs defines a zone as a “distinguished and uninhabited part of the territory of the Republic of Poland where economic activities can be pursued on rules stipulated in the Act.” They are managed by zone managing companies (ZMCs). Pursuant to the Act, over the period 1995-1997, the government established 17 zones that were designed to operate for no longer than 20 years, i.e., not beyond 2017. It means that from the very beginning they were intended as an interim solution. In 2001, some zones were phased out and others merged. We ended up with 14 zones, and a decision was made to let them operate until 2020. The deadline was then

¹ Differences in data are caused by differences in classification. The term “special economic zone” is usually a general one that captures a wider variety of zones (World Bank, 2008). As we can see from the number of studies on this very subject (Cirera and Lakshman, 2014), the most often used variety is *export processing zone* (EPZ).

postponed until 2026. The maximum area also increased several times, from the first ceiling of 6.3k ha to 25k ha in 2015.

Initially, special economic zones were established to “mitigate structural unemployment in selected regions of the country by targeting them with new investment projects stimulated by a package of financial incentives” (Ministerstwo Gospodarki i Pracy, 2005). They were the government’s response to the growing unemployment rate (from 6.5% in 1990 to 14.9% in 1995, GUS 2009) caused by the so-called shock therapy of 1990, which introduced the fundamentals of a market system together with structural transformation of the economy (Balcerowicz, 1992, Gomułka, 2014). Social tensions were especially severe in areas burdened with inefficient industrial enterprises inherited from the centrally planned economy (Jensen, and Winiarczyk, 2014). In some regions the unemployment rate reached 28% and capital was really scarce.

Over time, the primary reason behind the establishment of zones has lost its importance. The number of problem areas was reduced as GNI per capita grew from 2,420 USD in 1993 to 11,970 USD in 2008 (WDI, Atlas method) and due to the migration of labour (ca. 1.5 -2 million) after Poland’s accession to the EU in 2004. However, the government did not want to give up the instrument since its overall assessment was positive (e.g., NIK [Supreme Audit Office] 2009, NIK 2012) and entrepreneurs were interested in it (KPMG 2009). Therefore, it was decided that the land incorporated into zones after 2008 will “support investment in sustainable development policy¹ understood as social and economic development, which integrates actions designed to enhance the competitiveness of the Polish economy and create new jobs” (Ministerstwo Gospodarki 2009b, p. 4). It means that instead of helping “selected regions,” SEZs were intended to start supporting general development goals important for the prosperity of whole country.

The new *raison d’être* for the zones did not change the specific goals identified for them back in 1994. Pursuant to Art. 3 of the Act on SEZ, these include:

- 1) the development of specific areas of economic activity,
- 2) the development of new technical and technological solutions and their application in the national economy,
- 3) enhanced exports,
- 4) improved competitiveness of products and services,
- 5) managing existing industrial assets and economic infrastructure,
- 6) creating new jobs,
- 7) managing unused natural resources preserving the environmental equilibrium.”

¹ According to UNCTAD (2015), SEZs could be restructured for sustainable development. In a sense, Poland was a forerunner in such approach.

INCENTIVES AND REQUIREMENTS FOR INVESTORS

Zone location, size, and borders are proposed by local (regional) authorities and are ultimately decided by the Council of Ministers. When the program was started, every province (voivodeship) lobbied in Warsaw to be included and to have its “own” zone (Woś, 2017). As a result, they were headquartered in 14 out of the 16 provinces but with subzones in all of them. This is due to the fact that zones are distinguished in a legal sense. Hence, the plots are often dispersed, located in various voivodeships, sometimes several hundred kilometres away from each other, e.g. a ZMC in the south-east administers a sub-zone in the north-east of the country. In this regard, the Polish scheme differs from “classic” geographically delimited zones, established in China or in other developing countries (Zeng 2015), and is similar to *enterprise zones* in some developed countries (e.g. Kolko and Neumark, 2009; Gobillon et al., 2010, Briant et al., 2015). However, there is one important difference: the size of those *enterprise zones* is less than 50 hectares (World Bank 2008 p. 10). This might be the equivalent of a single plot and not of an entire SEZ in Poland, which in 2016 vary from 370 to 3,600 hectares.

Unlike “classic” SEZs, Polish ones also do not enjoy any legislative autonomy which could allow them to compete for investors. Everywhere they are supported by the same packet of incentives and are subjected to similar performance requirements and administrative procedures. The most important ones are presented in Table 1.

As a consequence, the differences in the value of incentives between SEZs result mainly from EU regulations on State aid ceilings which are regionally diversified. Since January 2018, they range between 10% and 50% of costs eligible for aid, depending on the voivodeship. The ceilings may be increased by 20 p.p. for small enterprises and by 10 p.p. for medium-sized ones. The remaining differences in the support level between the zones are of a qualitative nature. The “human factor”, i.e., the professionalism, initiative and open attitude of zone managing companies (ZMCs) and of local authorities towards investors are decisive. Natural advantages should also be taken into account: some SEZs are located in areas where big investment plots are available and in some others there is less free space left for industrial activity.

Investors consider income tax exemptions to be the most important incentives of the SEZ regime (KPMG, 2014). Exemptions represented as much as 84% of total aid granted to them by SEZs (NIK, 2009). Corporate income tax (CIT) exemptions for legal entities constituted 96% and personal income tax (PIT) exemptions for non-legal entities 4% of the total of such aid granted between 1998 and 2016 (Ministerstwo Gospodarki, 2017a).

Incentives	Procedures and requirements
CIT and PIT exemptions Fully developed investment plots Developed technical infrastructure Assistance during the start-up period (legal, organisational, in recruiting workers, searching for suppliers etc.) Property tax exemption granted (eventually) by local and regional authorities	Getting an investment permit (drafting a letter of intent, placing a bid, purchasing tender specifications, negotiations) Minimum level of employment, of investment value and of share of own capital Payments to ZMC (for ZMC's operating costs, maintaining zone infrastructure, promotion outlays, auditing investors etc.) Operating in the zone for at least 5 years (large investors) and 3 years (SMEs) Paying back the aid (with interest) if the permit terms and conditions are not fulfilled Not relocating production from other places in the European Economic Area .

Source: Own compilation

Table 1. *Incentives and requirements in SEZs*

When the programme was started in 1995, an investor simply did not pay any CIT for 10 years and was granted an exemption of 50% for the next 10 years. After adopting EU competition rules in 2001, this automatism was substituted by a discretionary scheme. Now tax exemption is calculated in a specific proportion to the costs eligible for State aid. An entrepreneur may determine them in two ways: first, as the amount of investment outlays, the option selected by most operators (EY, 2013). The alternative is a full two-year cost of employing new workers. The maximum amount of tax to be exempted is calculated in advance and the investor subsequently deducts the amounts due in consecutive years until he uses up all of it. Thus, in the least favourable case, if the project fails and does not bring expected profits, an entrepreneur may not use the exemption fully or in part. This may eliminate innovative and other risky projects from SEZs.

The administrative procedures and performance requirements for investors do not vary between provinces, so they differ less than the incentives. In some zones, administrative payments may be higher with procedures lasting longer than in others. Although at first sight the investors' obligations do not look too severe, in fact, they constitute an effective barrier to entry¹. By the end of 2015, the Minister of the Economy had granted 3,430 permits altogether. Of those, 711 were withdrawn, 535 expired, 6 were annulled and 1 repealed (Ministerstwo Gospodarki, 2016a). Thus, only two-thirds of the permits translated into actual economic operations. Secondly, studies show that 86% of Polish enterprises in the industrial manufacturing sector neither operate in a zone nor consider being a part of an SEZ. In the opinion of 44% of respondents, the costs entailed by the move would exceed the benefits (KPMG, 2012). We can conclude that only enterprises performing better than average can invest and produce in the zones.

¹ E. g. an investor can buy or lease real estate on free market much faster than in SEZ.

POLICY EVALUATION

ADB (2015) explains that the SEZ policy can be justified on two grounds: a static institutional approach and/or an evolutionary institutional (developmental) approach. The first view generally does not refer to the Polish case. SEZs were definitely not a platform to test new market institutions nor to gradually open up the economy. The shock therapy of 1990 was radical in both fields and “right” institutions were formally introduced across the economy from the very beginning. However SEZs might be seen as a remedy for the lack of “capable institutional actors”. Inefficient judiciary, unstable legal environment, unexperienced administration, weak financial system are normal in transition period. They need some time to get in synch. In such turbulent circumstances SEZs offered stability which could help to sustain public support for reforms and stimulate economic growth.

In the evolutionary (developmental) approach SEZs serve to ease the burden of institutional failures at consecutive stages of economic development. Hence they create enabling conditions for long term economic growth through vertically specialized industrialization and/or agglomeration effects. More specifically, SEZs are a tool of a (smart) industrial policy getting domestic firms into global value chains and/or “essentially a geographically concentrated government-promoted collection of internationally competitive enterprises” (ADB, 2015 p. 77-78). The last analytical framework also describes some aspects of SEZ policy in Poland. Its goals, incentives and requirements constitute a kind of mechanism selecting enterprises and allowing only excellent performers to invest and stay in the SEZs.

Summing up – only eclectic theoretical approach can explain meanders of SEZ policy in Poland.

As already mentioned, SEZs were initially designed as a policy reaction to local tensions resulting from rapidly growing unemployment. Thus, it may seem that they were supposed to accomplish standard goals of the regional policy. But formally such a policy did not exist in Poland at that time. *De facto* at the beginning zones were initiated by local authorities, not necessarily in areas in urgent need of government intervention (Ambroziak, 2003).

The regional policy was launched in 2000 (Szlachta and Zaleski, 2010) and gained momentum following the EU accession. However, the approach of the government did not change much. Since zone areas are delineated in legal rather than geographical and physical terms, plots (sub-zones) often pop up in locations selected by the investor, including his private land, not necessarily in areas where (compared to the rest of Poland) “the standard of living is abnormally low or where there is severe underemployment”¹.

¹ Art. 107.3 of the Treaty on the Functioning of the European Union laying down conditions for State aid admissible under regional policy framework.

The government can be very flexible: if an investor is considered important enough, a building or even a floor in a building may be included in a zone for him. In such an extreme case we are close to the concept of a *single factory EPZ* (World Bank 2008 p. 3). Priority given to market allocation of SEZ plots may be treated as proof of liberalism, and it has its economic merits (Moberg, 2015) because investors know best which site suits their needs. Such free spatial allocation of *enterprise zone* plots was also observed in California (Kolko and Neumark 2009). On the other hand, according to the Supreme Audit Office (NIK, 2009), it reflects the absence of regional policy, while adjusting zone location to investors' needs may induce corruption. How the dispersion of plots included in the zone impacts its efficient management is another issue worth investigating.

Formally, zone location is decided by the Council of Ministers taking the following two indicators into account: 1) the unemployment rate in a county (poviat) compared to the average unemployment rate in the country and 2) entrepreneur's obligation with regard to the amount of eligible cost of investment or the number of new jobs (*Rozporządzenie Rady Ministrów*, 2008; 2014). These criteria are inversely proportional, meaning if the investment is big enough a zone may be created even in a location where there is almost no unemployment. In an area with a high unemployment rate, a small investment suffices to establish a zone. The solution is intended to attract small investors to areas burdened with economic hardships and to stimulate the development of areas which do not suffer from such problems. However, the end result may be less, not more territorial cohesion.

When analysing the detailed goals specified in the Act (enhanced competitiveness, the growth of exports, new jobs, the inflow of modern technologies, and the development of specific industries) one may doubt whether zones were really intended to address local issues and not overall problems facing an economy in transition. The goals seem randomly selected and incoherent. Creating new jobs typically is a temporary intervention which does not improve competitiveness, which, in turn, requires long-term industrial restructuring. It may also be contrary to the application of the latest technologies which are usually labour-saving. Similarly, the growth of exports is not always good for development. It may even delay convergence if it simply amounts to assembling imported parts and generating trade deficit. Besides, the assumed goals, with the exception of job creation, seem to reflect wishful thinking and not real intentions, as they are unrelated to the requirements for obtaining a permit to invest in SEZs.

However, it is more important that the awareness of the government regarding the effects of incentives is most probably incomplete, which is not a weakness of only Polish politicians (Tavares-Lehmann, 2016). Official knowledge is limited to the number of permits issued and new jobs created, as well as the value, industry structure and country of origin of invested capital (Ministerstwo Gospodarki, 2017a). Production and exports, their technological advancement and competitiveness

remain unknown¹. It means that the government cannot find out to what extent its objectives are being carried out. Neither does it know the percentage of investment which would have probably taken place in a given region irrespective of the zone, i.e. the real attractiveness of SEZ for investors. Such ignorance does not promote any well thought out long-term development strategy.

Regardless of whether SEZs should support regional, industrial or other policies², initially the government expected them to correct market failures related to income distribution and equity. On the other hand, however, the fact that, over time, investors were banned from relocating production to zones from other European Economic Area (EEA) locations suggests that the zones themselves became treated as the source of distortions, which called for government intervention. In other words, market failure removed by primary legislation (on SEZs) re-introduces distortions into the market (unwanted relocation) and necessitates further regulations (a ban on relocation). This may be an example of State failure.

Zones are not only regulated and controlled by the government. They are managed by joint stock or limited liability companies in which the State Treasury or (in one case) voivodeship self-government has a majority holding. Zone managers are appointed through political decisions, and the recruitment procedure has nothing to do with those applied by private companies. The key to these positions lies in winning parliamentary elections and subsequent bargains over well-paid posts. For instance, in the years 2006-2011, the coalition government changed once. Over the same period (NIK, 2012), the Suwałki SEZ had as many as six CEOs, while the Łódź SEZ and Warmia-Mazury SEZ had five CEOs each. Only Katowice SEZ was managed by one single person for a period of 21 years. Such personal fluctuations suggest that senior positions in ZMCs are treated as political spoils. The ZMCs are also less bound by rigid financial limitations that would force out efficient management and the active seeking of investors. State ownership eliminates the race to the bottom in incentives but transfers competition to the political arena. Certainly, we do not know whether privatising the zones would improve the situation, but the available data suggest that – from the perspective of a host country – “private zones are not only less costly to develop and operate than public zones, but yield better economic impacts, too” (World Bank 2008, p. 47). As a result, most SEZs across the world belong to the private sector or are managed by private companies (Farole 2011).

When zones started to emerge, the scope of economic activities that could be pursued within them included all industries apart from mining (Ambroziak, 2003). Over time, this free market approach was replaced with a sectoral one. Nowadays, each zone should specialize in certain industries according to its program of development prepared by the government. In fact, it is more of a

¹ Due to a lack of statistical data there is also no academic research on these issues.

² Their areas of interest often coincide. For instance N. Acocella (2005 p. 183) defines regional policy as ‘essentially industrial policy targeted at a specific part of a country’s territory’.

suggestion than a rigid plan for ZMCs. The government also specified operations that are welcome and unwelcome in SEZs. The former included innovative projects, projects in 9 priority sectors (automotive, aircraft, electronics, machinery, biotechnology, small tonnage chemical production, R&D, modern services, and the production of equipment for the production of energy from renewable resources), and projects that support the development of clusters as well as industrial and technology parks (Ministerstwo Gospodarki, 2009b). The manufacturing of explosive materials and excise products were considered inadmissible for SEZ support. This second group was also joined by a substantial body of services, such as wholesale trade and repairs, information and communication, finance and insurance, and waste collection and recycling. The exception is storage, transportation and the BPO sector, which was even declared a preferred activity. As a result, until 2015, services attracted a mere 4% of invested capital (Ministerstwo Gospodarki, 2016a). Permits are also not granted when it is forbidden by EU regulations on regional aid (*Commission Regulation* No. 651/2014). On these grounds, inter alia, the production of basic agricultural products and fisheries have been eliminated.

No.	Zone	FDI investment outlays in PLN million	Share of FDI investment in total investment outlays (in %) (A)	No. of valid FDI permits	Share of valid FDI permits in total permits (in %) (B)	No. of people employed by foreign investors	Share in total employment (C)	FDI importance (according to sum of places in rankings) A+B+C
1.	Kamienna Góra	1,925.8	(3) 88.4	38	(5) 61.3	6145	(2) 91.2	3
2.	Katowice	20,122.1	(4) 86.8	214	(4) 64.8	49079	(4) 83.2	4
3.	Kostrzyń – Słubice	4,549.6	(7) 71.9	114	(3) 65.5	23016	(6) 74.5	5-6
4.	Kraków	1,642.4	(11) 55.8	53	(9) 34.4	15288	(8) 69.8	9
5.	Legnica	7,353.6	(1) 96.8	69	(1) 82.1	11606	(1) 92.1	1
6.	Łódź	9,216.8	(9) 67.7	99	(7) 48.0	17706	(11) 52.5	8
7.	Mielec	3,534.4	(10) 66.3	64	(10) 32.2	14320	(9) 64.6	10
8.	Pomerania	8,835.7	(5) 83.2	79	(6) 52.7	15326	(5) 77.9	5-6
9.	Słupsk	640.2	(12) 42.9	20	(13) 25.0	887	(13) 26.1	12
10.	Starachowice	857.3	(13) 40.2	20	(11) 26.0	3319	(12) 47.6	14
11.	Suwałki	783.1	(14) 37.7	14	(12) 25.7	1120	(14) 13.9	13
12.	Tarnobrzeg	6,388.2	(6) 79.0	81	(8) 42.0	16727	(7) 66.2	7
13.	Wałbrzych	20,594.6	(2) 94.7	201	(3) 70.8	39876	(3) 89.9	2
14.	Warmia – Mazury	3,027.8	(8) 71.7	15	(14) 15.8	9910	(10) 57.1	11
	Total	89,471.6	80.1	1,081	49.7	224325	71.9	-

Note: ranking positions are given in brackets

Source: own compilation based on Ministerstwo Gospodarki (2016a).

Table 2. *Foreign investment in SEZs (as at 31.12.2015)*

FDI VIS-À-VIS DOMESTIC INVESTMENT IN SEZS¹

Although the SEZs are open to capital irrespective of its origin, opinions are voiced that they were established first and foremost to attract foreign direct investors to Poland (Gromada et al., 2015).

¹ If not stated otherwise, all data come from Ministerstwo Gospodarki (2016a).

Additionally, journalists emphasize only their impact on FDI inflows, leaving their importance to domestic entrepreneurs aside (Woś, 2017). Indeed, value-wise, foreign capital dominates in the zones. The total value of its stock exceeded PLN 89.6 bn in 2015, representing more than 80% of all investment projects in SEZs (Table 2). The share has stabilised at that level since 2004.

Until 2015, FDI resources in zones increased almost six times, much faster than in the rest of the country. As a result, their share in total FDI in Poland doubled (Table 3). The importance of zones for capital inflow was much bigger and grew even faster in manufacturing. In 2005, FDI in zones represented 15%, and in 2015 as much a 39% of all FDI in this sector (NBP, 2017).

The popularity of SEZs was clearly changing among domestic and foreign investors. Uncertainty over State aid during accession negotiations reduced investment inflows in the years 2002-2003 (Ministerstwo Gospodarki i Pracy, 2005). It means that the rapid increases reported later were not only due to entrepreneurs' optimism about the full openness of the Polish economy to trade with the EU and the adoption of the *acquis communautaire*, they also resulted from a low starting point.

The dynamics of FDI inflow to zones compared to domestic capital was especially high in the first four years following the EU accession (Table 3). The then dynamics indices would have been higher had the Polish zloty not strengthened and reduced the value of investment in Polish currency. The increasing interest of foreign investors in zones weakened with the outbreak of the financial crisis. Over the period 2009-2015, domestic investments increased at a higher rate, although the weakening Polish zloty automatically increased the value of foreign assets.

Year	FDI in Poland (in PLN mln.) as at the end of the year	FDI in SEZ (PLN mln.) as at the end of the year (a)	Share of FDI in SEZ in total FDI in Poland (%)	FDI in SEZ dynamics (previous year = 100)	Domestic investment in SEZ dynamics (previous year = 100)	Nominal effective PLN exchange rate 2010=100
2004	251,499.0	15,742.49	6.3	nd.	nd.	87.1
2005	281,598.5	20,308.53	7.2	129	129	97.3
2006	337,012.1	28,344.24	8.4	139	131	100.6
2007	400,241.1	37,416.58	9.3	132	122	104.7
2008	439,582.4	46,697.31	10.6	125	115	114.6
2009	477,137.5	55,122.95	11.6	118	118	94.6
2010	556,071.7	60,532.30	10.9	110	111	100.0
2011	561,904.0	65,488.82	11.6	108	112	97.4
2012	616,675.7	69,696.63	11.3	106	114	93.9
2013	690,250.5	74,699.24	10.8	107	111	95.2
2014	741,716.5	82,551.59	11.1	109	109	97.1
2015	712,058.3	89,569.69	12.6	109	114	95.9

Source: own compilation based on: NBP (2017); Ministerstwo Gospodarki (2016a) data for 2012-2015; for the period 2004-2011 after: Siudak, (2014, Tab. 3); IMF (2016).

Table 3. *FDI in SEZs vis-à-vis FDI in Poland*

Overall, the data demonstrate that the advantage of foreign investors over domestic ones was obtained mainly through their larger capital resources (Table 2). Their dominance was less obvious

when we look at employment (71.9%), while the percentage of valid permits, i.e., the number of implemented investment projects, was almost identical (50.2%). It means foreign projects were, on average, more capital intensive and usually bigger. Consequently, most probably, their productivity was higher due to the economies of scale and better technical equipment.

At the individual zone level, we can see that most of them are inhabited by foreign investors. Only in three of them was their share in overall investment outlays and employment below 50%. In terms of investors' population, the interest of foreign and domestic investors was more or less balanced, with the clear supremacy of foreign investors in the group of large enterprises and the advantage of domestic investors among medium-sized and small enterprises (Table 4). Interestingly, in zones dominated by large foreign enterprises, the share of small and medium-sized foreign businesses was also above the average for this group of businesses. They were most probably business partners of international companies who follow their main customers and invest in the vicinity of their new plants. It would be interesting to know to what extent they crowded out Polish firms as potential suppliers and subcontractors.

No.	Zone	Share of permits issued to foreign investors in the total number of permits by business size:		
		small	medium-sized	large
1.	Kamienna Góra	41.7	50.0	80.0
2.	Katowice	21.3	40.9	81.6
3.	Kostrzyn – Słubice	51.5	29.4	81.3
4.	Kraków	8.9	14.3	62.9
5.	Legnica	33.3	41.7	96.8
6.	Łódź	4.0	42.5	57.4
7.	Mielec	4.8	23.3	69.8
8.	Pomerania	3.1	53.8	70.3
9.	Słupsk	0.0	22.2	57.1
10.	Starachowice	15.4	14.8	50.0
11.	Suwałki	9.7	9.1	25.0
12.	Tarnobrzeg	12.9	47.1	56.8
13.	Wałbrzych	21.4	52.4	88.8
14.	Warmia – Mazury	12.2	0.0	28.6
	Total	15.4	33.5	71.6

Source: own compilation based on the data processed (upon author's request) for our study by the Ministry of Economic Development in 2016 (as at 31 December 2015).

Table 4. *Share of permits by size of investor*

By reviewing all the above listed measures, i.e., the share of invested capital, the share of valid permits and the share in total employment in the zone, we can conclude that foreign investors played a major role in the development of zones located near the western and southern borders of Poland (Legnica, Wałbrzych, Kamienna Góra, and Katowice). Their competitiveness was high, especially for manufacturers of cars and spare parts who have a clear preference for these locations. Two of the reasons were the availability of big plots where they could build car factories and the industrial

traditions of the region. Agglomeration economies provided an additional argument for locating more companies of the same industry in the region.

The further east we go, the less investors are interested in the zones, despite usually higher State aid ceilings. Zones in these regions develop industries other than automotive.

Foreign investments in SEZ are highly concentrated in ownership, geographic and sectoral terms. At the end of 2015, almost 74% of their capital originated from 6 countries: Germany, the U.S., the Netherlands, Japan, Italy, and South Korea. Only two zones: Katowice and Wałbrzych attracted almost 44% FDI (Table 2). Fifteen major investors in SEZs (out of ca. two thousand) are companies with foreign capital. By the end of 2015, they had invested almost PLN 26.9 bn, i.e. 24.1% of all investment projects and 30 % of FDI. The automotive sector is the best represented in this group with 58.9% of invested resources. They accounted for almost one-third of all FDI in the zones.

CONCLUSIONS

Special economic zones in Poland are SEZ in name only as they do not meet one crucial criterion (World Bank 2008): they are not geographically distinguished areas. In this respect, they resemble the (*urban*) *enterprise zones* that can be found in developed countries, although due to their much bigger size they also do not fit this category. Thus, they are a solution that is typical of Poland.

Government policy vis-à-vis SEZs has changed over time. Originally, they were established to help regions affected by market failures which accompanied the general market reform of 1990. However, the government's approach was flexible. It gradually extended SEZs also to include plots chosen or even owned by investors even though they were not necessarily located in areas affected by social tensions or where public intervention was needed.

Secondly, although the government declared ambitious objectives, some of them mutually exclusive, in reality, the creation of the largest possible number of new jobs was the principal one. With the absence of more detailed data about the economic performance of investors, it was both easy to monitor and sell to the public as proof of policy success.

Thirdly, the requirements to invest in the zone, especially regarding the possibility to take advantage of tax allowances, which the investors value the most, became stricter when Poland adopted the EU's competition rules in 2001. On the one hand, it eliminated weaker enterprises from applying for incentives. On the other hand, it probably also limited the number of technologically advanced and innovative, i.e., riskier, projects which are needed to modernise the Polish economy.

Fourthly, the zones were expected to mitigate problems resulting from local shortages of capital and jobs. Yet investors were banned from relocating activities to an SEZ from regions where these resources were in abundance, in Poland and the whole EEA.

Remarkably, as market reform progressed, the scope of administrative interference in SEZ operations increased. This was partly attributable to Poland's integration with the EU and being subjected to common rules on State aid. The government reduced the array of activities that could be pursued in the zones, identified the minimum period of an investment and investor's holdings, and adopted more stringent rules on aid recovery.

SEZs were attractive mostly for foreign investors although they realised a similar number of projects as domestic ones. However, foreign enterprises dominated when it comes to invested capital and the number of employed people, i.e., their factories were bigger and more capital intensive. They focused on the automotive industry, but their interest in SEZs decreased after the crisis of 2008-2009.

Formally, SEZs in Poland should stop operating in 2026. Until then, present regulations will coexist with the *Act on supporting new investment* adopted in 2018 which will later substitute for the SEZ Act. It will radically change the SEZ regime. Investors will be free to decide about the location of production, but the government will support only those projects which, in its view, stimulate the competitiveness and innovativeness of regional economies and the development of Poland. Thus, the policy will become much more discretionary, and its results will depend on the skills and professionalism of politicians and bureaucrats.

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TAX EXPENDITURE ASPECT OF UNIVERSITY EDUCATION: THE MODEL OF TURKEY

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ABSTRACT

Not all of the tax immunities and exemptions granted to universities are considered as tax expenditures and are not included in tax expenditure calculations. However, these calculations may differ from country to country and are not certain. In this study, an analysis of tax immunities and exemptions granted to the universities in Turkey has been made under the concept of tax expenditures. It has addressed which tax immunities and exemptions granted to the universities are regarded as tax expenditures and which are not and which taxes are to be paid by the universities. As a result of this study some controversial issues in the calculation of tax expenditures in the area of university education in Turkey have been identified. For example, non-profit foundation universities education is not free as government universities education. These universities have a very high income. However, they are not payers of corporate tax. As another example, people who give donations to the universities can deduct from their income the full donation to diminish their tax. Should this situation be seen and calculated as a tax expenditure or not? Both controversial examples have not been calculated as tax expenditure in Turkey but mentioned in the 2016 tax expenditure report of Turkey. In this study the suitability of existing practices has been discussed.

Keywords: Turkish Tax Law, Tax Immunities and Exemptions, Universities, Tax Expenditures, Standard Tax Structure

INTRODUCTION

Educational services have increasingly started to be seen as a commodity that is bought and sold both in the country and in the international arena. The criteria that determine whether educational services are personal goods or public goods are their characteristics of excludability from consumption and competitiveness in consumption. Education is a personal good in its essence as it has both excludability and competitive characteristics in terms of consumption. Therefore it is possible to purchase and sell it as a normal commodity subject to international trade. While there is no economic reason for the state to cover educational services, because of public benefits (positive externalities) educational services need to be financed or at least subsidized by the state. Many examples may be

given to the positive externalities provided from educational services. For example, education leads to an increase in the labour productivity in the economy. Educational services lead to the establishment of citizenship consciousness in society, the development of democratic understanding and the increase in the possibility of living together by bringing society on a common ground, reduced the crime rates, and income distribution to a fairer level (Baum, Ma & Payea 2013; Hermansson, Lisenkova, Lecca, McGregor, & Swaleskim, 2016; Dur & Teulings C.N. 2002).

For these and similar reasons, governments finance educational services and provide free education opportunities for their citizens. However, although education is partially provided free of charge and subsidized by the state, it increasingly becomes a commodity that is bought and sold around the world. This is very common in university education as well.

Looking at the structure of universities in Turkey, there is a dual system of state universities and foundation universities. Higher education institutions, subject to state supervision and auditing, can be established by the foundations and they do not seek profit. Thus, foundation universities have been given public legal entities just like state universities. As of 2017, there are 181 universities in Turkey, 112 are state and 69 are foundation universities. Because of the public benefits provided by the university education, it is largely carried out by the state, but paid education is also allowed through foundations. However, the foundation universities should not be seen as an ordinary commercial enterprise established by any foundation. The constitutional provision¹ emphasizes the necessity of establishing foundation universities as a non profit organization. Moreover, the foundation universities are established by law pursuant to the Constitution. Briefly, the foundation universities are constitutional institutions. After specifying the structure in this way, the universities established by the foundations have been given the right to largely benefit from various tax exemptions and immunities which are provided to state universities by various laws.² Even though the legislature has not made any distinction between state-funded universities and foundation universities while regulating tax exemptions and immunities provided to the universities, the following part of the study will show there are some differences in terms of some taxes.

In this study, an analysis of tax exemptions and immunities granted to both state and foundation universities has been made under the concept of tax expenditures. The concept of tax expenditure has been firstly defined, then, the distinction on which tax exemptions and immunities granted to universities are tax expenditure, and which ones are the parts of normative tax system has been

¹ Article 130 of the Constitution of the Republic of Turkey

² It is ensured in the b clause of Article 56 of the Council of Higher Education Law no 2547 that the universities shall benefit from the same immunities and exemptions, and other financial facilities granted to other public institutions subject to the general budget and in the Amendment 7 of the Council of Higher Education Law, higher education institutions founded by the foundations shall benefit from the financial provisions, exemptions and immunities specified in Article 56 of this law in the same manner.

made and besides, the taxes that exist in the Turkish Tax System and that the universities have to pay are expressed. While this analysis is being carried out, the correctness of the practices in Turkey is discussed since the border between the tax expenditures and normative tax system is not sharp.

CONCEPT OF TAX EXPENDITURE

Tax expenditures are the tax revenues that are deprived by deviating from the normative tax system in order to reach certain economic and social goals. In a broader sense, the tax expenditure means the loss caused by exemptions, immunities and reductions which are not fundamental regulations required for the imposition and implementation of a tax and which are granted to reduce the burden of some taxpayer groups, to encourage them, to facilitate management, and for other reasons. In other words, the state makes some kind of public expenditure by waiving from the tax revenue it may obtain. The state tries to realize a number of practices for the benefit of taxpayer groups by waiving at certain rates from the tax it will collect from the taxpayer groups rather than spending the collected tax for these groups (Burton& Sadiq 2013, Redonda 2016).

The definition of tax expenditure does not classify all exemptions and immunities in the tax system as tax expenditure. The structure of the normative tax system and the issues that are described as deviation can change depending on the countries. In other words, while an application in one country may be considered tax expenditure, it may not be considered as tax expenditure in another country. Various criteria are considered to determine whether the provisions in the tax laws are tax expenditure or an element of the normative tax system. According to these criteria, in order to assess it as tax expenditure, the existence of certain economic and social objectives, the existence of an uncollected tax, privileged application to certain taxpayer or taxpayer groups are required. A tax expenditure can be replaced by a direct expenditure of government and arises when it is conditional on characteristics (which means a reduced rate of tax is not received automatically it is conditional upon characteristics or choice (Tyson 2014; Myles, Hashimzade, Heady, Oats, Scharf and Yousefi 2014; Tax Expenditures Report 2016). Characteristics of tax expenditures summarized as:

Table:1 Characteristics of a tax expenditure

Ch 1	Motivated by a social or economic policy
Ch 2	Reduces or defers tax liability
Ch 3	Provides a benefit to qualifying taxpayers or encourages an identified activity
Ch 4	Potentially replaceable by direct expenditures
Ch 5	Conditional on characteristics or action

Source: Myles, Hashimzade, Heady, Oats, Scharf and Yousefi (2014). "The definition, measurement, and evaluation of tax expenditures and tax reliefs", Technical Paper, Tax Administration Research Centre, National Audit Office, pp.16

In the following section, the taxes faced by universities in Turkey, the exemptions and immunities they benefit regarding these taxes, and the places of these tax exemptions and immunities in tax expenditure shall be explained along with the suitability of these applications.

THE TAXES AND TAX EXPENDITURES FACED BY UNIVERSITIES IN TURKEY

-Assessment in Terms of Corporate Tax

According to the Turkish Corporate Tax Law both state or non-profit sector-owned enterprises are subject to corporate tax. Then if an exemption is granted to these enterprises for a social purpose it should be seen as tax expenditure.

Both the state universities and foundation universities do not pay corporate tax. It is clear that state universities are not taxpayers of Corporate Tax. Because, state universities are not economic enterprises. Naturally, they are not a taxpayer of corporate tax. The status of the foundation universities is controversial. Does non-payment of corporate tax by the foundation universities stem from an exemption granted to them or are they not taxpayers of corporate tax just like the state universities? Although the 2016 Tax Expenditures Report verbally states that non-payment of corporate tax by the foundation universities should be considered as a tax expenditure, no such calculation has been found in their tax expenditure calculations.

From my point of view, corporate tax not collected from foundation universities should be included in the calculation of tax expenditures. The situation doesn't change when it comes to the health institutions within the body of foundation universities that provide health care services for a fee. Providing corporate tax exemption for these health institutions that are profitable and compete with other private hospitals in the sector, should be considered tax expenditure. However in the 2016 tax expenditure report, Annex 1-2, Corporate Tax which is not collected from foundation hospitals was added to list as tax expenditure but was not included in the calculation with the explanation of , data is not available.

- Assessment in terms of charitable contributions

In Article 10/c of Corporate Tax and Article 89/4,5 of Income Tax Law state that a certain part of the donations to be made to certain institutions including the universities may be deducted. With the Law of Higher Education 2547, the limit of these reduction has been abolished regarding the universities and it has been ruled that all donations made to the universities may be deducted. In the 2016 tax expenditures report, it has been stated that waived tax shall not be tax expenditure as these reductions can be made by all the tax-payers of corporate tax and as the activities of institutions and organizations where donations and reliefs are made prioritize public utility rather than profit motive.

However, this issue is quite debatable. In many countries the charitable tax deduction is an example of tax expenditure (Faulhaber 2014). In my view, these donations should also be considered as a tax expenditure in Turkey.

-Assessment in terms of Motor Vehicle Tax

Motor Vehicle Tax is not to be collected for the vehicles recorded and registered on behalf of both state and foundation universities¹ and this situation is in the list of tax expenditures (Article 4 of Motor Vehicle Tax).

-Assessment in terms of Real Estate Tax

Real estate tax is not to be collected for the buildings and lands recorded and registered on behalf of both state and foundation universities and this situation is in the list of tax expenditures (Article 4a, 14a of Real Estate Tax).

-Assessment in terms of Inheritance and Succession Tax

Inheritance and Succession Tax is not to be collected for any kind of donation and testaments to be made both state and foundation universities and this situation is in the list of tax expenditures (Article 56 of the Higher Education Law no 2547).

- Assessment in terms of Stamp Tax

Stamp tax is not to be collected in the agreements executed with the governmental agencies by both state and foundation universities. This situation is in the list of tax expenditures. In the Agreements executed with the persons of the universities, Stamp Tax is paid by the persons (Article 1..3,8, annex 2 of Stamp Tax Law).

- Assessment in terms of Fees and Duties

Both state and foundation universities do not pay judgment fees and land registry and cadaster fees. This situation is in the list of tax expenditures. The universities are obliged to pay some duties and fees in the Act of Fees (Article 13/j, article 59/a of Act of Fees).

-Assessment in terms of Announcement and Advertisement Tax

Both state and foundation universities do not pay Announcement and Advertisement Tax, and this situation is in the list of tax expenditures (Article 14/6 of Law on Municipal Revenues).²

-Assessment in terms of Entertainment Tax

Both state and foundation universities do not pay tax for their any activities which can be considered as entertainment, and this situation is in the list of tax expenditures (Article 19/2 of Law on Municipal Revenues).

-Assessment in terms of Environmental Cleaning Tax

¹ Vehicles Tax Internal Circle no 2000/1

² Special notice dated 12/10/2011 and numbered B.07.1.GİB.4.34.18-01-007.01-1797

Both state and foundation universities do not pay Environmental Cleaning Tax, and this situation is in the list of tax expenditures (Duplicated Article 44 of Law on Municipal Revenues).

-Assessment in terms of Value Added Tax

-Non-payment of Value Added Tax by the Students Studying At State Universities

There is no VAT payment for students who study at state universities. Tuition fee paid by students who study at state universities already have tax and similar financial liability characteristic. So, this is not within the scope of tax expenditure.

-Value Added Tax Collected from the Students of Foundation Universities

Educational services offered by foundation universities are subject to Value Added Tax.¹

-Assessment in terms of Special Consumption Tax

The universities pay special consumption tax for the goods they have bought, which are subject to the tax. For example, Special Consumption Tax must be paid for a vehicle bought on behalf of foundation. There is no exemption.²

-Assessment in terms of Income Tax Withholding over Interest and Similar Revenues

Withholding payments made in accordance with Article 67 of the Income Tax Law over the interest incomes accrued on the deposit accounts of the foundation universities in the banks.

- Assessment in terms of Communication Tax

Both foundation and state universities pay communication tax for the fixed telephones they use while they do not pay tax for telex, facsimile and data charges (Article 32 of Law on Municipal Revenues)

- Assessment in terms of Electricity and Gas Tax

Both state and foundation universities should pay Electricity and Gas Consumption Tax to the municipalities. However, according to the exemption in the Article 36 of the Law on Municipal Revenues, there is an exemption for the hospitals dispensaries, etc. which are operated for non-profit purposes. In this case, the non-profit university hospitals do not pay Electricity and Gas Consumption Tax (Article 36 of Law on Municipal Revenues).³

- Assessment in terms of Share for Contributions to Expenditures

In accordance with the Articles 86-88 of the of Law on Municipal Revenues no 2464, if road, sewerage system and water facilities are constructed by the municipalities or the affiliated entities, the contribution to expenditures shall be collected from the owners of immovable properties which are

¹ According to Law No. 3065, 17 (2 / b), free educational services provided by the universities and colleges provided not to exceed 50% of their capacities in the related semester are exempted from VAT. According to this situation, if the number of scholarship students is over 50%, the foundation university is obliged to pay VAT of the fee which it has not received to the state.

² B.07.1.GİB.4.42.16.02-KDV-2-293-19 Date:23/07/2010

³ There is exemption for the hospitals operated for non-profit purposes.

benefit from them. As there is no exemption provision for the benefit of the universities, both state and foundation universities are obliged to pay share for contributions to expenditures.

Table 2 show the summary of the taxes paid and not paid by the state and foundation universities:

Table 2 The Taxes Paid and Not Paid by the State and Foundation Universities

	State Universities	Foundation Universities
Corporate tax	Not taxpayer/normative tax structure	Not taxpayer/ tax expenditure but not calculated
Motor Vehicle Tax	Exempted/tax expenditure	Exempted/tax expenditure
Real Estate Tax	Exempted/tax expenditure	Exempted/tax expenditure
Inheritance and Succession Tax	Exempted/tax expenditure	Exempted/tax expenditure
Stamp Tax	University does not pay	University does not pay
Special Consumption Tax	Not exempted	Not exempted
VAT to be paid by the students	Exempted/not tax expenditure	Not exempted
Donations made to the universities by the taxpayers of Corporate Tax	Reducible/not calculated as tax expenditure in Turkey but it is calculated in many other countries	Reducible / not calculated as tax expenditure in Turkey but it is calculated in many other countries
Donations made to the universities by the taxpayers of Income Tax	Reducible/ not calculated as tax expenditure in Turkey but it is calculated in many other countries	Reducible / not calculated as tax expenditure in Turkey but it is calculated in many other countries
Withholding under Article 67 of Income Tax on the incomes such as interest and etc.	Not exempted	Not exempted
Announcement and Advertisement Tax	Exempted/tax expenditure	Exempted/tax expenditure
Entertainment Tax	Exempted/tax expenditure	Exempted/tax expenditure
Communication Tax	Exempted/except fixed phone service	Exempted/ except fixed phone service
Electricity and Gas Consumption Tax	Not exempted	Not exempted
Fire Insurance Tax	Not exempted	Not exempted
Environmental Cleaning Tax	Exempted/tax expenditure	Exempted/tax expenditure
Share for Contributions to Expenditures	Not exempted	Not exempted

CONCLUSION

From an economic point of view, university education is a private commodity. However, because of the positive externalities of it, it is considered as merit goods and is promoted and subsidized by the state. Many tax expenditures are made in Turkey for the universities. When the definition of the tax expenditure concept is examined, it is understood that any kind of tax exemption and immunities provided by the state is not considered as tax expenditure, some parts of it are seen as normative tax structure. Exemptions and immunities that are considered as normative tax structure are not included in countries' tax expenditure calculations. This study has discussed that which tax exemptions and immunities granted to the universities in Turkey are tax expenditure and which ones are considered as normative tax structure and which tax need to be paid by the universities.

This study has identified the universities are not taxpayers of 1 of 15 taxes discussed within the scope of this study¹, that they are exempted from 7 of them², that they are obliged to pay 5 of them³ and that the students and other persons who are in relation with the university are obliged to pay 2 of them⁴.

It has been determined that the applications regarding Corporate Tax are controversial. It is clear that state universities are not taxpayers of Corporate Tax. Foundation universities also do not pay corporate tax. However, the reason why foundation universities do not pay corporate tax is not clear. Are they not the taxpayers of corporate tax or are they exempted from corporate tax even though they are, in fact, taxpayers? In the 2016 Tax Expenditures Report, it has been verbally stated that the foundation universities are exempted from corporate tax and this situation is tax expenditure (Tax Expenditures Report 2016, pp.112). However, no such calculation has been made in their tax expenditure calculations.

From my point of view, corporate tax which is not collected from foundation universities and foundation hospitals should be included in the calculation of tax expenditures.

Another controversial issue is that the donations made to both the state and foundation universities can be deducted from the corporate tax or income tax and are not considered as tax expenditure. However in many countries the charitable tax deductions are seen as tax expenditure. In my view, in Turkey the deduction of these donations should also be seen as tax expenditures.

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FINANCIAL ANALYSIS AND TECHNICAL EFFICIENCY OF LIVESTOCK PRODUCTION: A TYPOLOGICAL APPROACH OF GREEK GOAT FARMING

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ABSTRACT

Goat farming is a dynamically developed sector in Greece with relatively high contribution to the Gross value of livestock production. During the last few years, there has been a decrease in the number of small farms, concurrently with an increase in the number of large, organized farms of a 'closed' type, thereby indicating a clear shift towards business structures. The purpose of this paper is to examine the relationship between financial ratios and technical efficiency, highlighting the impact of technical efficiency on financial ratios. In addition, the paper aims to examine the relationship between technical efficiency and the financial variables, which are associated to the capital management. Moreover, the financial behavior of goat farms in cohesion with technical efficiency and some social parameters are studied. The application of the hierarchical cluster analysis revealed distinct clusters of goat farms showing distinct financial variables and behavior. Based on the final profile of the goat farm clusters, specific measures are proposed, aiding to the improvement of the goat farms competitiveness and sustainable development.

Keywords: financial ratios, technical efficiency, goat farming, typology

INTRODUCTION

Goat farming is a dynamically developed sector in Greece with a relatively high contribution to the Gross value of livestock production (14%) (Greek Statistical Service, 2016). The national flock reached 3.9 million heads, of which 36% of goats are reared on pure goat farms and the rest on mixed sheep and goat farms.

The traditional goat farming system in Greece is semi-extensive. It's worth mentioning that Greece is the only European country where the semi-extensive system is dominant compared to semi-intensive and intensive system which are dominant primarily in other European countries with developed dairy goat sector.

It is a fact that the semi-extensive breeding system exploits the natural flora during grazing in inaccessible mountainous and disadvantaged areas. This has as a result the goat feeding to be enriched with the native flora of these areas, while this form of farming is an alternative source of food animal origin, without requiring the commitment of cropland. In addition, the semi-extensive breeding system is a low input system, very close to the principles of organic farming, with which it is often identified; a fact that can yield specific qualities in goat milk produced by goats which are breeding under this farming system (Gelasakis, 2014, Aggelopoulos et al., 2016).

Greece holds the first position in goat meat production and the second position in the production of goat milk among the EU countries.

Despite the increase of the number of large, organized farms, approximately 76% of goat holdings in Greece are not viable, while 11% are marginally viable (Arsenos, 2012). The business development rates in the sector depend on competitiveness and sustainability. The level of competitiveness and sustainability of the goat industry is significantly influenced by the level and the structure of capital that it is invested in goat farms. Specifically, it is influenced by the financing profile, the degree of utilization of the available production factors, the productivity and efficiency. Most farms in Greece operate under increasing scale, is therefore required increase in size in to achieve lower production cost and improved profitability (Theocharopoulos et al., 2007).

Many farms are characterized by high investment in fixed capital. These large investments require funding from equity capital or debt capital, which generates financial costs (Bonazzi & Iotti, 2014).

On this basis, the systematic study and analysis of the characteristics of the viability, productivity and competitiveness of the goat sector is considered to be particularly timely given the context of globalization and increased competition in which goat farms are forced to operate.

MATERIALS AND METHODS

The research data were collected by using questionnaires and through personal interviews with the “heads” of the goat farms during the years 2015-2016. Stratified random sampling was used to determine the sample (Siardos, 2005), with the regions of Municipality of Thessaloniki representing the strata being studied. The selected research area was the geographical region of Thessaloniki, Greece. The sample included 120 goat farms. During the last few years, there has been a decrease in the number of small farms, concurrently with an increase in the number of large, organized farms of a ‘closed’ type, thereby indicating a clear shift towards business structures. (Aggelopoulos et al., 2011, Karagiannis et al., 2005). Business structure farms have more than 100 animals and a high degree of modernization (Miliadou, 2010).

The geographical region of Thessaloniki was selected, because 35% of the farms have an average of 215 goats (Greek Statistical Authority, 2016), while the average number of goats in other regions of Greece is 54 animals.

The purpose of this paper is to examine the relationship between financial ratios and technical efficiency, highlighting the impact of technical efficiency on financial ratios. In addition, the paper aims to examine the relationship between technical efficiency and the financial variables that associated with the capital management. Moreover, it is studied the financial behavior of goat farms in cohesion with technical efficiency and some social parameters.

The data of the farms that were employed in the present study were the Invest Capital Turnover ratio, the Total Liabilities to Equity ratio, the Solvency- Leverage ratio, the Return on Assets ratio, the Technical Efficiency, the age of the heads of the goat farms, their educational level and the number of animals.

The purpose of the financial analysis is to evaluate liquidity, profitability, solvency and efficiency of goat farms. These ratios are the main ratios for identifying farms with business structures (Lawes & Kingwell, 2012). In order to estimate the above ratios asset and liability is recorded and with the use of balance sheet the ratios are calculated. Based on these case studies and the relevant financial data, a series of financial ratios were estimated. The use of ratios is one of the most widely disseminated and dynamic methods of financial analysis (Niarchos, 2004). In the present study, ratios were calculated pertaining to the Liquidity, Risk and Efficiency of the units' operation, which are considered by many authors to be suitable when aiming to delineate the course and viability of a business (Oustapassidis et al., 2000, Aggelopoulos et al., 2004)). The indicators were initially calculated for each goat farm. Then the mean of the ratios was calculated for the samble of farms (Table 1).

Table 1:	Mean	Std.	MIN	MAX
	D.			
Invest Capital Turnover Ratio	0,659	0,290	0,121	1,524
Total Liabilities to Equity Ratio	0,049	0,077	0,000	0,509
Total Liabilities to Total Assets Ratio	0,098	0,108	0,002	0,623
Return on Assets Ratio	-0,047	0,156	-0,639	0,346
Total Asset Turnover Ratio	2,009	0,839	0,833	7,125
Capital Efficiency Index	0,970	11,767	-31,620	30,622

Table 1. *Assessment of the ratios of the goat sector*

Technical efficiency is the effectiveness with which a given set of inputs is used to produce an output. A firm is said to be technically efficient if it is producing the maximum output from the minimum quantity of inputs, such as labour, capital and technology (Farrell, 1957). Technical efficiency represents the ability of a farm to produce the maximum physical output given a set of inputs and

technology (Output- Oriented) or, alternatively, to produce the same output with the maximum feasible reductions in inputs given the technology set (Input-Oriented) (Farrell, 1957, Galanopoulos et al., 2006).

The aim of technical efficiency analysis is to examine the current state of goat farming in Greece, to identify factors that affect its profitability and analyze the efficiency of goat farms. In order to evaluate technical efficiency, the input-oriented model is used, which is more appropriate because in the agricultural sector a farmer has more control over input rather than over output levels, which may be exogenously determined. Moreover, the inelastic demand of most agricultural products makes cost reduction a better means of promoting agricultural economic development with respect to output increase (Galanopoulos et al., 2006, Abrev et al., 2011).

The model used in order to analyze the efficiency assumes one output (gross margin in €) and five inputs, which represent the key factors of production (labor costs €, feed costs €, variable capital in €, without feed, fixed capital and loans). In the output factor it was not considered subsidies (€) in order to measure the real efficiency of farms, without any regulatory distortions. All variables have been normalized by an additional variable, namely the number of farm animals. Estimates of the degree of technical efficiency was using program DEAP 2.1 (Coelli, 1996). The labour variable includes both family and hired labour. Fixed capital includes all the annual expenses of fixed assets, such as the interest costs, depreciation, maintenance, insurance and some other annual expenses of lesser importance. Feeding expenses include the annual cost of feedstuffs. Gross returns of farms include revenues from goat production such as milk and meat.

Table 2: Scale of efficiency	No of farms	% farms	Mean efficiency	of	Std. D.
0.1-0.49	23	19.2	0.28		0.31
0.5-0.79	29	24.1	0.67		0.18
0.8-0.99	23	19.2	0.89		0.11
1	45	37.5	1.00		0.00
Total	120	100	0.76		0.27

Table 2. *Technical efficiency from VRS*

In order to develop the typology of the goat farms, hierarchical cluster analysis was used (Everitt 1993, Aldenderfer & Blashfield 1984, Norusis 1992). The formulation of the clusters was made using the Ward criterion, while the squared Euclidean distance was used to measure the (dis)similarity between the farms (Hair et al 1995, Sharma 1996). The analysis was carried out using the statistical package SPSS ver. 24. The variables were converted to z-scores before being entered into the analysis. In order to apply the hierarchical cluster analysis, the factorial axes resulting from the Principal Component Analysis were used on the selected economic data, in order to avoid the effect of multicollinearity on the cluster formulation.

The contribution of each variable in cluster formation was identified by examining the magnitude and the statistical significance of the corresponding R^2 coefficients estimated by the application of a series of one-way ANOVA (Sharma, 1995).

The statistically significant difference, at a significance level $\alpha=0.05$, according to the results of the Tukey Multiple Comparison Test. Due to the homogeneity score variances that existed between Total Liabilities to Equity ratio, Invest Capital Turnover ratio and technical efficiency among the three clusters, the clusters were compared with a series of Games-Howell tests.

RESULTS

By applying Hierarchical Cluster Analysis on the financial data of the farms' current status, the typology of the goat farms is defined. In order to apply the proposed methodology for the farms, the following variables and ratios were used: Invest Capital Turnover ratio, Total Liabilities to Equity ratio, Solvency- Leverage ratio, Return on Assets ratio, Total Asset Turnover ratio, Capital Efficiency ratio and Technical Efficiency. Following the application of hierarchical cluster analysis, a group of three clusters was carried out. Sixteen farms were placed in the first cluster C1 (13,3%), fifty-three in the second cluster C2 (44,2%) and fifty-one were placed in the third cluster C3 (42,5%) (Table 3).

	N		(%)
C1	16	13.3	
C2	53	44.2	
C3	51	42.5	
Total	120	100.0	

Table 3. *Cluster description of goat farms*

PROFILE OF THE FIRST LEVEL OF CLUSTERS

Table 4 shows that the first cluster farms have high capital efficiency, the Invest Capital Turnover ratio is high, the technical efficiency is also high, Total Asset Turnover ratio is quite low. The Total Liabilities to Equity ratio is low, the Solvency- Leverage ratio is low. The Return on Assets ratio is also low*.

Clusters	X1	X2	X3	X4	X5	X6	X7
C1 (n=16, 13,3%)	0,487 b	0,208 a	0,263 a	0,051 a	3,152 a	8,484 a	0,706 a
C2 (n=53, 44,2%)	0,761 a	0,026 b	0,061 b	0,046 a	2,194 b	8,905 a	0,654 a
C3 (n=51, 42,5%)	0,607 ab	0,023 b	0,084 b	-0,175 b	1,459 c	-9,634 b	0,710 a
R2	0,116	0,667	0,371	0,499	0,456	0,605	0,011
p	0,001	<0,001	<0,001	<0,001	<0,001	<0,001	0,526

Table 4. *Description of the first level profile of clusters*

**For each index, mean ranks that have different letter, are statistically significant, at a significance level $\alpha=0.05$, according to the results of the Tukey Multiple Comparison Test (for indexes X1, X3, X4, X6) or with a series of Games-Howell tests (for indexes X2, X5, X7), where X1 Invest Capital Turnover ratio, X2 Total Liabilities to Equity ratio, X3 Solvency- Leverage ratio, X4, Return on Assets ratio X5 Total Asset Turnover ratio, X6 Capital Efficiency ratio, X7 Technical Efficiency.*

From the statistical significance of the corresponding it is noticed that the greatest contribution to the formation of the clusters have in descending order the Total Liabilities to Equity ratio, the Capital Efficiency ratio, the Return on Assets ratio, the Total Asset Turnover ratio, the Solvency- Leverage ratio, the Invest Capital Turnover ratio and the Technical Efficiency.

Goat farms in the first cluster, are mainly dependent on equity financing, while there are a few farms that are dependent of loans. Also, farms in the first cluster do not have an effective use of invested capital in relation to their sales while they do not use their assets effectively, although they could achieve greater technical efficiency by reducing their inputs by 29%.

The farms that are in the second cluster have high capital efficiency, the Invest Capital Turnover ratio is high, the technical efficiency is also high, Total Asset Turnover ratio is quite high. The Total Liabilities to Equity ratio is low, the Solvency- Leverage ratio is low and also low is the Return on Assets ratio.

Goat farms in the second cluster are mainly dependent on equity financing, while there are a few farms that are dependent of loans. Also, farms in the second cluster show a fairly efficient use of the invested capital in relation to their sales, while using their assets as efficiently as possible, while ultimately achieving greater technical efficiency by reducing their inputs by 34%.

Moreover, in the third cluster farms have a negative capital efficiency, the Invest Capital Turnover ratio is low, the technical efficiency is high, Total Asset Turnover ratio is quite low. The Total Liabilities to Equity ratio is low, the Solvency- Leverage ratio is low and the Return on Assets ratio is negative.

Goat farms in the third cluster, are mainly dependent on equity financing, while there are a few farms that are dependent of loans. Farms in the third cluster do not have an effective use of the invested capital in relation to their sales and because of the negative capital efficiency they have loss. They do not use their assets efficiency and finally could achieve greater technical efficiency reducing their inputs by 29%.

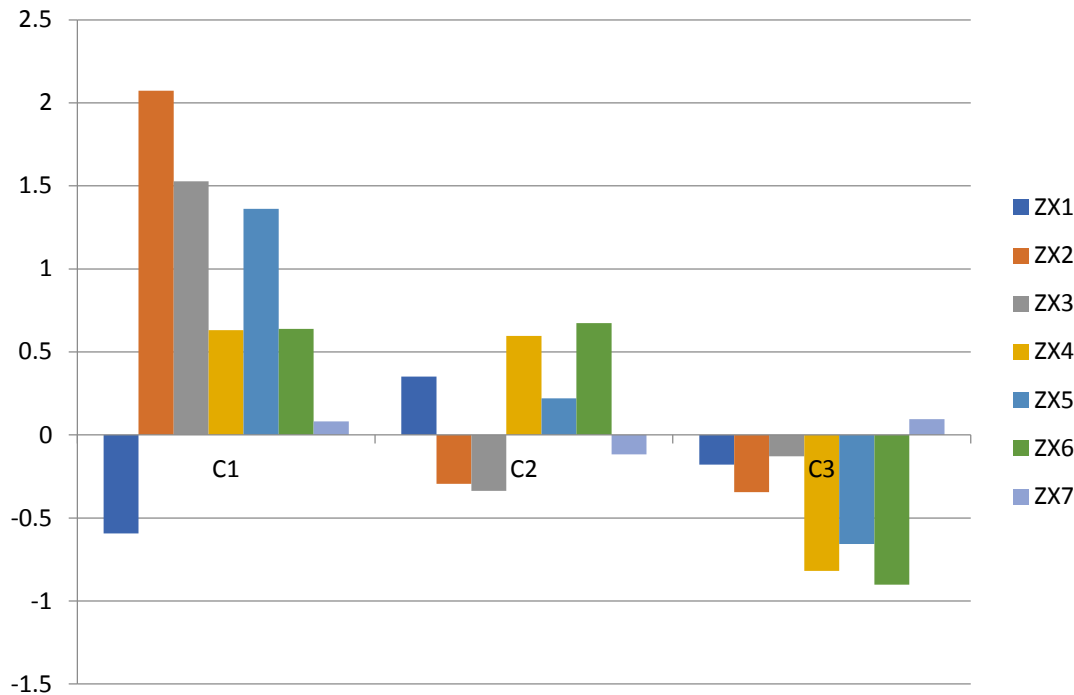


Figure 1. Mean z-scores of the seven indexes scores among the three clusters

Where X1 Invest Capital Turnover ratio, X2 Total Liabilities to Equity ratio, X3 Solvency- Leverage ratio, X4, Return on Assets ratio X5 Total Asset Turnover ratio, X6 Capital Efficiency ratio, X7 Technical Efficiency

Figure 1, presents that cluster C1 influenced by the Total Liabilities to Equity ratio, the Solvency- Leverage ratio and the Total Asset Turnover ratio. The Invest Capital Turnover ratio has a negative correlation.

Cluster C2 influenced by the Invest Capital Turnover ratio, the Capital Efficiency ratio, while Solvency- Leverage ratio, the Total Asset Turnover ratio and Technical Efficiency have a negative correlation.

Cluster C3 influenced by Technical Efficiency, while the Total Asset Turnover ratio, Capital Efficiency ratio and the Return on Assets ratio have a negative correlation.

PROFILE OF THE SECOND LEVEL OF CLUSTERS

In order to focus on the particular characteristics of the clusters that were obtained, the cluster profile was investigated in relation to other variables that did not participate in their formation but were investigated through the relevant questionnaire. Variables of particular interest were the age and the educational level of the heads of goat farms.

Clusters	Average	Standard Deviation	Min	Max
C1	53.5	19.9	23.0	82.0
C2	48.0	14.2	24.0	77.0
C3	41.0	15.6	18.0	71.0

Table 5. *Cluster comparison in relation to the age of the heads of goat farms*

Table 5 presents that in cluster C1 the average age of the heads of goat farms is 53,5 years, in cluster C2 the average age is 48 years and in cluster C3 the average age is 41 years.

Table 6: Clusters	Average	Standard Deviation	Min	Max
C1	9.0	5.7	1.0	17.0
C2	11.0	4.1	2.0	17.0
C3	12.0	3.3	3.0	17.0

Table 6. *Cluster comparison in relation to the education level (in years) of the heads of goat farms*

Table 6 presents that in cluster C1 the average educational level of the head of goat farms is 9 years, in cluster C2 the average educational level is 11 years and in cluster C3 the average educational level is 12 years.

THIRD LEVEL PROFILE OF CLUSTERS

For the third level profile of clusters, the number of animals was used as a variable.

Table 7 Clusters	Average	Standard Deviation	Min	Max
C1	208.6	351.0	10.0	1171.0
C2	286.3	258.5	22.0	1000.0
C3	206.2	240.3	15.0	1195.0

Table 7. *Cluster comparison on relation to the number of goats*

Table 7 presents that in cluster C1 the average number of goats is about 209, in cluster C2 the average number of goats is about 286, while in cluster C3 the average number of goats is about 206.

FINAL PROFILE OF CLUSTERS

Cluster C1 (n=16, 13.3%)	Cluster C2 (n=53, 44.2%)	Cluster C3 (n=51, 42.5%)
First level profile	First level profile	First level profile
-They depend on equity financing	- They depend on equity financing	-They depend on equity financing
- Few loans	- Few loans	- Few loans
-They invest their capital not efficiency	-They invest their capital not efficiency	-They invest their capital not efficiency, they have loss
-They do not use their assets efficiency	- They use their assets efficiency	-They do not use their assets efficiency
-They can achieve greater technical efficiency by reducing their inputs by 29%	-They can achieve greater technical efficiency by reducing their inputs by 34%	-They can achieve greater technical efficiency by reducing their inputs by 29%
Second level profile	Second level profile	Second level profile
-The average age of the heads of goat farms is 53.5 years	-The average age of the heads of goat farms is 48 years	-The average age of the heads of goat farms is 41 years
-The average education level	-The average education level of	-The average education level

of the heads of goat farms is 9 years	the heads of goat farms is 11 years	of the heads of goat farms is 12 years
Third level profile	Third level profile	Third level profile
-The average number of animals is 209	-The average number of animals is 286	-The average number of animals is 206

Table 8. *Total table of clusters profile*

CONCLUSIONS

The first cluster (C1) consists of 16 farms (13.3%), which mainly depend on their equity financing, while there are a few farms that are dependent of loans. Farmers in the first cluster do not have an effective use of invested funds in relation to their sales and they do not use all of their assets effectively. They could achieve greater technical efficiency by reducing their inputs by 29%. In cluster C1 the average age of head of goat farms is 53.5 years and the average educational level is 9 years. The average number of animals is about 209.

The second cluster (C2) consists of 53 farms (44.2%), which are mainly dependent on their equity financing, while there are a few farms that are dependent of loans. The farms of the second cluster show effective utilization of the invested capital in relation to their sales, they use effectively all their assets and they could achieve greater technical efficiency by reducing their inputs by 34%. The average age of the head of goat farms is 48 years and the average level of education is 11 years. The average number of animals is 286.

The third cluster (C3) consists of 51 farms (42.5%), which are mainly dependent on their equity financing, while there are a few farms that are dependent of loans. Farms in the third cluster do not have an effective use of invested capital in relation to their sales while they do not use their assets effectively, although they could achieve greater technical efficiency by reducing their inputs by 29 %. The average age of head of goat farms is 41 years and average level of education is 12 years. The average number of animals is 206.

As regards the farms in cluster C2, have more business-oriented development structures than cluster C1 and C3 farms. C2 cluster farms consist of a larger number of animals, making better use of their assets and they are more efficiency.

As a conclusion, the goat farming sector has a weak financial position and is extremely heterogeneous in terms of the management efficiency of its units. The assessment of the indicators shows that the degree of effective use of resources controlled by the industry is not satisfactory because the majority of farms do not effectively utilize its assets due to over-investment of capital in fixed assets in relation their sales.

It is proposed an increasing in the number of animals in order to achieve economies of scale and therefore better economic results.

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ADOPTION OF PRACTICES OF ENVIRONMENTAL SUSTAINABILITY IN VITICULTURE: FIRST SUGGESTIONS FROM CANTON OF TICINO

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ABSTRACT

The paper investigates the practices of environmental sustainability implemented in viticulture to minimize the negative impact of agricultural operations on the environment. Through the use of an electronic questionnaire, developed on a theoretical approach based on the Stakeholders Theory and the Theory of Planned Behaviour, and sent to a sample of wineries of the Canton of Ticino, the research pursues a triple aim: (i) to understand which are the main practices and initiatives of environmental sustainability adopted at firm level; (ii) to identify the main stakeholders that affect the choices of managers and owners to orient the firms towards the adoption of practices aimed at greater environmental sustainability; and (iii) to identify the personal drivers that most influence the managers' orientation towards a lower impact on the environment. The results show that the most common practices are the reduction of chemical inputs and the minimization of soil working. In this sense, a significant weight is exerted by the pressures coming from regulatory, societal, and value chain stakeholders, that, together with the manager's perception on the environmental practices, influence the orientation of the firm towards strategies that have a lower impact on the environment. The small size of the sample does not allow generalizing the results, but it provides some suggestions from a managerial and political point of view and it gives new ideas for future research.

Keywords: Sustainable viticulture; Environmental sustainability; Environmental practices; Ticino wineries; Stakeholders Theory; Theory of Planned Behaviour.

INTRODUCTION

Conventional agriculture, characterized by high mechanization and inputs-dependent agricultural practices, threatens the ecological foundation of the world's food systems, due to the depletion of the limited natural resources (Alder *et al.*, 2012). The numerous reflections on the protection of the environment and on food security have led to rethink and redefine the production models of the agricultural and rural world towards a greater sustainability of the natural resources and an agro-ecological approach (Horlings and Marsden, 2011), modifying the traditional linear models of

production-consumption-disposal towards sustainable and circular systems aimed at the reuse of resources, with a view to a circular economy (Lacy *et al.*, 2016; Paolotti *et al.*, 2016). The concept of sustainability in agriculture has therefore begun to make its way among the farmers, and it is increasingly becoming widespread mostly in vitiviniculture (Borsellino *et al.*, 2016; Chiusano *et al.*, 2015; Corbo *et al.*, 2014). According to the International Organization of Vine and Wine (OIV) the sustainable vitiviniculture is defined as a *global strategy on the scale of the grape production and processing systems, incorporating at the same time the economic sustainability of structures and territories, producing quality products, considering requirements of precision in sustainable viticulture, risks to the environment, products safety and consumer health and valuing of heritage, historical, cultural, ecological and aesthetic aspects* (OIV, 2011).

As suggested by the Stakeholders Theory (SHT) proposed by Freeman (1984), the choices of the managers can be affected by the pressures of stakeholders, such as institutions, trade associations, employees, suppliers, customers, members of local communities, and environmental associations. In this regard, the stakeholders, thanks to their influence, are able to direct organizations towards adopting more environmentally friendly practices (González-Benito *et al.*, 2011; Marshall *et al.*, 2010; Sarkis *et al.*, 2010). To this must be added the attitudes, the subjective norms, and the perception by the managers of a given behaviour. These drivers, in fact, are able to influence the environmental choices of the managers (Wauters *et al.*, 2010; Fielding *et al.*, 2008), as explained by the Theory of Planned Behaviour (TPB).

With this in the mind, the present work aims at a triple purpose: (i) to understand which are the main practices and initiatives of environmental sustainability adopted at firm level; (ii) to identify the main stakeholders that affect the choices of managers and owners to orient the firms towards the adoption of practices aimed at greater environmental sustainability; and (iii) to identify the personal drivers that most influence the managers' orientation towards a lower impact on the environment.

In pursuing the aims of the paper, the study uses an electronic survey, developed on a theoretical approach based on the SHT and the TPB, to outline the most common practices and business operation, and the main drivers (intended as stakeholders and personal factors) that encourage wineries managers to adopt practices aimed at reducing the negative effects of firm operations on the environment, and to develop strategies of environmental sustainability.

THEORETICAL FRAMEWORK

In order to understand the orientation of wineries towards the introduction of practices and initiatives of environmental sustainability, the theoretical approach developed in this paper uses two theories, the SHT and the TPB.

The first theory, the SHT, developed by Freeman (1984), suggests that business success depends on relationship of the firm with stakeholders. The latter are defined as groups or individuals who are able to influence or be influenced by the achievement of the organization's objectives (Freeman, 1984). In this direction, several works focus on the influence of stakeholders on the adoption of environmental sustainability practices at the firm level (González-Benito *et al.*, 2011; Marshall *et al.*, 2010; Sarkis *et al.*, 2010). González-Benito *et al.* (2011), analyzing the effects of the stakeholders pressure on the environmental behaviours of several firms in different industrial sectors, notice that the implementation of environmental management systems under the pressures of stakeholders reduce the divergence between what the organization does and what it should do. Marshall *et al.* (2010) observe in the wine industry of New Zealand and United States that internal stakeholders play a much less significant role than expectations in adopting environmentally sustainable practices by wineries managers, while external stakeholders play a rather marginal role. Sarkis *et al.* (2010), instead, by focusing on the Spanish automotive industry, reveal a clear and strong link between stakeholder pressures and the adoption of environmental practices. The stakeholders can be distinguished in primary stakeholders and secondary stakeholders (Wheeler and Sillanpää, 1997; Clarkson, 1995). The first are those without whose participation the organization could not survive. This category includes customers, employees and suppliers, as well as the communities and governments that respectively provide the infrastructures and the rules that regulate the markets. The latter are subjects who do not hold direct control of the organization, but they influence or are influenced by the organization. This category of stakeholders is able to positively or negatively influence the performance of an organization thanks to the ability to sensitize public opinion, influencing the orientation of the organization's programs and corporate strategies towards the expectations and needs of the interest groups. This influence is expressed in the creation of externalities that influence internal and external actors, which can express interests that can influence organization practices through direct or indirect pressures (Galati *et al.*, 2015). Another distinction concerns the classification in internal and external stakeholders. In this case, the subjects operating within the organization's physical boundaries (shareholders, managers and employees) are internal stakeholders, while those who influence the organization from outside represent the external stakeholders, which can be divided into societal (business associations, trade unions and other social actors), regulatory (governments and institutions), and value chain (suppliers and consumers) stakeholders (Ferrón Vilchez *et al.*, 2017).

The second theoretical approach is based on the TPB proposed by Ajzen (1985; 1987; 1991) and derived from the Theory of Reasoned Action (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975). The TPB introduces a new variable, the perceived behavioural control, that is the perception that an

individual has of being able to implement the desired behaviour. This control influences the intention to implement a given behaviour and the actual behaviour itself. The theory states that an individual's intentions and the behaviours depend on attitude towards behaviour, subjective norms and perceived behavioural control. In this sense, the perceived behavioural control reflects, on the one hand, motivational factors that have an indirect effect on behaviour through intentions; on the other hand, it reflects the actual control. (Madden *et al.*, 1992). This theory is well suited to analyze the individual factors that influence the decisions of the manager in adopting practices and strategies aimed at greater environmental sustainability in the organization and, in this sense, it has been used in some works to explain the environmental behaviour of managers (Wauters *et al.*, 2010; Fielding *et al.*, 2008). In particular, Fielding *et al.* (2008) analyze the main factors affecting the engagement in sustainable agricultural practices in the horticultural firms of the Queensland, in Australia. Their results show that the perceived behavioural control and the attitudes are significant factors in adoption of sustainable agricultural practices. The study by Wauters *et al.* (2010) contrasts partially to the previous one. The Authors, in fact, investigating the adoption of conservative practices for the soil management among Belgian farmers in the loam and silt-loam belt, find that attitude is the most explaining factor in the adoption of soil conservative practices, while the perceived behavioural control is a not significant variable in the intention to perform this environmental behaviour.

MATERIALS AND METHODS

Object and area of study

The study was conducted in the Canton of Ticino, in the south of Switzerland. The area is particularly suited to the cultivation of vines, and the viticulture is the branch of the Ticino agricultural sector that showed a significant rate of growth in recent years, rising from a gross production of 30,710.3 million Swiss francs in 2004 to 36,024.7 million in 2016 (USTAT, 2018), witnessing the remarkable economic vitality of the sector. In the same year the wine-producing holdings were 486, with a total utilised agricultural area of 807.1 ha. Among these, the firms where the viticulture is the main activity were 253 with a total utilised agricultural area of 647.9 ha (USTAT, 2018). The average farm size is pulverized, and this is well suited to assess the influence of the choices of winegrowers and wineries managers in guiding the farm towards greater environmental sustainability, given that owners and managers play a decisive role in decision-making processes in small firm (Marshall *et al.*, 2010: 405). Recently, the viticulture of the Ticino shows an orientation towards actionable solutions aimed at reconciling the benefits of the economic activities with the environmental impact that they cause, in order to achieve: (i) an

efficient use of the water resources; (ii) healthy, safe and pesticide-free food production; (iii) maintenance of soil fertility, with an optimal humus content and microbiological activity; (iv) a correct remuneration of the labour and a fair trade (Haldemann, 2014). The Swiss Confederation encourages agricultural productions that are environmentally sustainable and market-oriented, contributing effectively to the food security of the population, safeguarding the natural processes of the environment and the rural landscape, and guaranteeing employment decentralized on the territory, as provided by the Federal Constitution (Swiss Confederation, 1999).

Questionnaire and measures

For the preparation of the questionnaire, to be sent to the firms, and its items, we have based on previous works, appropriately modified and integrated for this study (Garini *et al.* 2017; Marshall *et al.*, 2010; Marshall *et al.*, 2005).

The questionnaire was structured in four parts.

In the first section, it was asked to indicate the role played by the respondent in the winery, and the general characteristics of the firm, such as year of establishment, production capacity, farm land, type of management, and number of permanent or seasonal employees.

Subsequently, it was asked to indicate the main practices adopted in the winery to reduce the impact on the environment of business operations.

In the third section, in order to identify the most influential stakeholders related to the adoption of sustainable environmental practices in the firm, 14 items were proposed with a Likert-type scoring system that ranged from 1 (not at all) to 5 (very much).

In the last section, in order to identify the main factors affecting the decision-making process of winegrowers and wineries managers in adopting sustainable practices, we used 13 items. The managers were asked to respond using a Likert-type scoring system that ranged from 1 (not at all) to 5 (very much).

Data collection and sample description

The reference population for our empirical survey included firms operating in the Ticino wine industry, which produce wine and commercialize bottled wine of own production. Consulting the list of firms present on different websites, as Associazione Viticoltori Vinificatori Ticinesi (AVVT, 2018) and Ticinowine (2018), 84 wineries met the requirements of the research, constituting the target population of reference. At the end of this phase, an online questionnaire has been sent to each of these wineries via e-mail, in order to understand which are the drivers (in terms of stakeholders and factors) that most influence the managers' orientation towards greater environmental sustainability in the farm. The survey was designed taking into account the main empirical studies on the orientation

of firms towards greater environmental sustainability and adapting it in the specific case to the wine industry (Garini *et al.* 2017; Marshall *et al.*, 2010; Marshall *et al.*, 2005).

Data collection was conducted in February-March 2018. The wineries have had a month to complete the questionnaire. At the end of this period, 23 questionnaires were received, but only 17 were complete in their entirety for the analysis, thus recording a response rate of 20.2%.

Table 1 briefly presents the characteristics of the analyzed sample.

Table 1. General characteristics of the sample analyzed					
Variable	Obs	Mean	Std. Dev.	Min	Max
Year of establishment	17	1990	18.1	1950	2017
Manager' age	17	22.1	59.1	0	250
Production capacity	17	44500	56247.8	1500	170000
Permanent employees	17	4.2	4.1	1	15
Seasonal workers	17	3.1	7.2	0	30
Total employees	17	7.3	10.4	1	45
Type of management					
Conventional agriculture	3				
Integrated agriculture	13				
Biological agriculture	1				

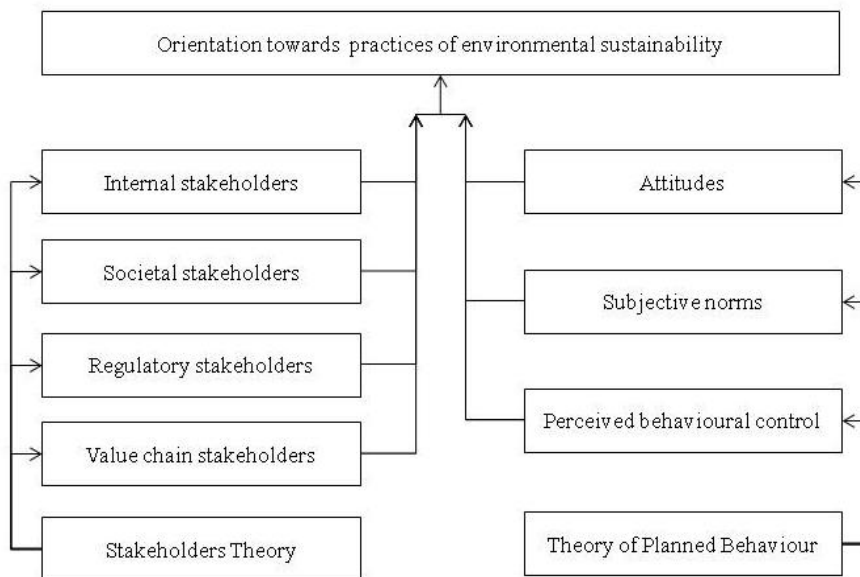


Figure 1. Theoretical model of the research.

Methodology

Based on the two theoretical approaches analyzed, the SHT and the TPB, we adopted a descriptive approach to analyze the orientation of wineries managers towards the adoption of practices of environmental sustainability. On the one hand, through the SHT, the main internal, societal, regulatory, and value chain stakeholders able to affect the proactive environmental behaviour were observed; on

the other hand, through the TPB the main attitude, subjective norms, and perceived behavioural control able to direct managers towards greater sustainability in the wineries were examined. Figure 1 shows the proposed model in the research.

RESULTS AND DISCUSSIONS

The results of the survey conducted among the wineries of the Canton of Ticino that commercialize wine produced in their firms identify the main practices aimed at reducing the impact of business operations on the environment and natural ecosystems (Table 2). The analysis shows that the most common practice of environmental sustainability among the Ticino wineries examined is related to the reduction of chemical products (adopted by 70.6% of the wineries). Through the organic fertilization and the sowing of nitrogen-fixing crops, in fact, the soil fertility is improved, and through the mechanical or manual mowing of rows, the use of chemical products, that could be harmful to the ecosystem and the human health, is avoided. The 52.9% of the wineries, instead, makes less soil workings with the aim of reducing the use of mechanical means in the field and favouring natural processes of the soil, such as humification, through total or partial grassing and mowing. With a diffusion of 47.1% among the wineries of the sample there are respectively the management of waste materials (stalks, wine marc, and wine less) by composting and subsequent use as organic fertilizer in vineyards, and the use of sustainable packaging produced with recycled and/or recyclable materials. An efficient use of water resources at firm level is adopted in 35.3% of the cases observed through localized irrigation systems, such as micro-irrigation and the sub-irrigation, and investment in performing machinery and pipes. The less adopted practices of environmental sustainability are those linked to the use of materials, processes and means of sustainable winemaking (adopted by the 29.4% of the samples observed), such as the limited use of sulphites, the use of natural yeasts, the distillation of wine marc, and the introduction of manual mechanical machines, and the reuse of the waste water for the irrigation of the vineyard (17.6% of the wineries).

Table 2. Main practice of environmental sustainability adopted

Environmental sustainability practice	No.	%	Actions
Reduction of chemical inputs	12	70.6	Organic fertilization, sowing of nitrogen-fixing crops, and mechanical or manual mowing of sub-rows.
Reduction of soil working	9	52.9	Total or partial grassing, and mowing.
Management and reuse of waste materials	8	47.1	recycling, and composting of organic waste and its use as organic fertilizer in the vineyard.
Sustainable packaging	8	47.1	Use of cork stoppers, recyclable packaging, use of recycled glass bottles, non-plasticized labels, no capsules, no scotch in packaging, use of biodegradable materials.
Efficient use of water resources	6	35.3	Performing machinery, micro-irrigation and sub-irrigation.

Sustainable winemaking	5	29.4	Limited use of sulphites, limitation of barriques and introduction of amphorae, press and other small non-electrical mechanical machines, distillation of grape marc, use of natural yeasts.
Management and use of waste water	3	17.6	Waste water treatment and their use for irrigation.

Our results also show the main stakeholders that influence the choices of owners and wineries managers to direct the firms towards the adoption of sustainable practices, and the main personal drivers that most influence the managers' orientation towards greater environmental sustainability.

In relation to the main stakeholders that affect owners and wineries managers in introducing sustainable environmental practices into the firm, the results do not show great differences between the different categories of stakeholders, as can be seen from the Table 3. Regulatory stakeholders (2.8), societal stakeholders (2.7), and value chain stakeholders (2.6) are the most influential stakeholders; on the contrary, internal stakeholders are those that have less impact on the adoption of environmental practices in the wineries analyzed. Going in detail, according to the survey conducted, the regulatory stakeholders play a primary role thanks to their task to regulate the market and the production processes. Regarding the societal stakeholders, the internal differences between this category of stakeholders is slight, with the mass media covering a greater influence (2.9), followed by environmental associations (2.8), the trade associations and the local community in which the winery operates (2.7). Value chain stakeholders include consumers who, thanks to their purchasing power, represent the group of interest that has the greatest impact on guiding wineries towards greater sustainability in production processes (3.3). Finally, with regard to internal stakeholders, it is possible to observe a reversal of the hierarchical structure in orientating corporate strategies towards greater environmental sustainability, with greater weight covered by employees (2.7) compared to managers of business operations (2.4) and top manager (1.9). Our results show the considerable influence associated with the pressures exerted by the stakeholders (especially external) on the adoption of environmental practices, and they are in line with the research results carried out in other sectors, where a direct effect between the introduction of environmental practices and the pressure of stakeholders it was observed (González-Benito (2011; Sarkis *et al.*, 2010). Despite this, the greater influence of external stakeholders, with respect to internal ones, that emerges in our results, is in contrast with what was highlighted by Marshall *et al.* (2010), according to which in the United States and New Zealand wine industry internal stakeholders would represent significant drivers of adoption of environmental practices compared to external ones.

Table 3. Stakeholders affecting the orientation towards the environmental sustainability (range from 1 to 5)

Internal stakeholders	2.3	Regulatory stakeholders	2.8
Employees	2.7	Governments/regulations	2.8
Managers of business operations	2.4	Value chain stakeholders	2.6

Top manager	1.9	Consumers	3.3
Societal stakeholders	2.7	Retailers	2.7
Media/Press	2.9	Local competitors	2.5
Environmental associations	2.8	Foreign competitors	2.4
Industry associations	2.7	Suppliers	2.4
Local communities	2.7	Wholesalers	2.2

Table 4 shows the most influential drivers that push owners and wineries managers towards practices with a lower impact on the environment based on the TPB. In this case, behaviour control perceived by managers (3.3) plays a major role in the adoption of environmentally sustainable practices, compared to the managers' subjective norms (3.1), and to the attitudes pursued in the wineries (2.6). In particular, the manager's perception on environmental issues (3.5), the influence of potential future regulations, compared to the current ones, on business decisions towards greater environmental sustainability (3.4), and the difficulty associated with the management of sustainable practices and innovations aimed at greater sustainability (3.4) are the main factors among the behaviour control perceived by manager. As part of subjective norms, personal satisfaction (3.4), choice of life (3.3), and environmental values (3.1) of owner or wineries manager are the most influential factors. Finally, regarding the attitudes pursued in the wineries observed, the wine quality (3.3), the employee welfare (3.2), aimed at reducing the risks of exposure of workers with substances harmful to their health, such as chemicals, and the spread of the environmental awareness among employees (3.1) are the most important factors. The results also show that the attitudes linked to the requests coming from the market, such as responding to the demand for healthy (2.7) and differentiated products (2.5) have a secondary importance, while those related to economic purposes, such as cost savings (2.1) and the increase in profits (1.8), assume a marginal weight.

These results are partly confirmed by other researches. Fielding *et al.* (2008), for example, showed that the main factors affecting the engagement in sustainable agricultural practices in the horticultural firms of the Queensland (Australia) are the perceived behavioural control and the attitudes. In contrast, Wauters *et al.* (2010), investigating the adoption of conservative practices for the soil management among farms of the Belgium, found that perceived behavioural control was a not significant variable.

Table 4. Factors affecting the orientation towards the environmental sustainability (range from 1 to 5)

Attitudes	2.6	Subjective norms	3.1
Improvement of wine quality	3.3	Personal satisfaction	3.4
Employee welfare	3.2	Choice of life	3.3
Spread environmental awareness among employees	3.1	Environmental value	3.1
Comply with regulations	2.8	Relevance of environmental issues	2.7
Respond to the demand for healthy products	2.7	Perceived behaviour control	3.3
Market differentiation	2.5	Manager's perception on environmental issues	3.5
Costs savings	2.1	Influence of potential future regulations on the orientation	3.4

		towards greater environmental sustainability	
Respond to the pressures of interest groups	1.9	Difficulty associated with the management of sustainable practices	3.4
Increase profits	1.8	Influence of the adoption of sustainable practices on the level of approval or disapproval of the stakeholders	2.7

CONCLUSION

Environmental sustainability is a value that in recent years is becoming increasingly important in agriculture and mainly in viticulture. This work is inserted in this context and it provides some information about the most common practices of environmental sustainability, the main stakeholders and the most influential personal drivers that guide the owners and wineries managers to orient their firm towards a lower impact of the business operations on the environment.

From the results it emerges that the most adopted practices among the wineries of the Canton of Ticino are connected to the attention of the safety and the health of the employees, together with the will to produce wines of quality and respectful of the environment, through actions such as the reduction of chemical products and the diminution in soil working.

The research also reveals that regulatory, societal, and value chain stakeholders are the most influential interests groups orienting the wineries towards sustainable initiatives and practices, while the internal stakeholders play a marginal role.

The paper highlights the personal factors for adopting more environmentally sustainable practices for the wineries, based on the three categories of the TPB: the attitude pursued, the subjective norms, and the perceived behaviour control by the manager. According to this approach the behaviour control perceived by the manager plays a decisive role in the adoption by wineries of environmental sustainability practices.

This study provides some theoretical, managerial and political implications.

From a theoretical point of view, the study enriches the existing literature using the SHT and the TPB as a theoretical basis to investigate the main factors and stakeholders able to direct the wineries managers towards a more sustainable viticulture.

From a managerial perspective, the research provides interesting tools to owners and wineries managers who wish to orient their firm towards greater environmental sustainability through practices that reduce the impact on the natural ecosystems. In particular, wineries managers could use the results of this study to better plan their business strategies, in order to correctly balance the costs and benefits resulting from the adoption of actions aimed to minimize the impact of business operations on the environment.

From a political point of view, Governments should promote the adoption and the use of practices and tools by farms aimed at greater protection of the environment and natural ecosystems, and they

should invest more in technologies and innovation, encouraging the spread of the green economy and environmental sustainability in agriculture.

The main limitation of the research lies in the reduced number of samples observed, which does not allow generalizing the results of the study, but at the same time it is able to provide some useful suggestions for winegrowers and wineries managers.

Taking into account these limitations, future research could develop the present study, increasing the size of the reference sample in order to obtain results that can be generalized, and it could address the same topic in other sectors of the agriculture in order to evaluate similarities or differences in the analyzed results.

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AN ANALYSIS OF FIRM PROCESSES FOR INNOVATION: STAGE-GATE MODEL AND DISCOVERY DRIVEN PLANNING

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ABSTRACT

The work sets out to analyse two different approaches to manage innovation, taught in curricula of leading business schools and adopted by innovative firms: Stage-Gate® (Cooper, 1994) and Discovery Driven Planning (DDP), first published in 1995 by McGrath and MacMillan. We aim at classifying and comparing the main characteristics of the two models, thus highlighting the main differences between the two approaches. The analysis shows that DDP is characterized by higher project flexibility, higher learning potential, a more incremental commitment of resources and a lower risk as compared to Stage-Gate model, which make this approach better suited in high-uncertainty contexts.

Keywords: Stage-Gate, Discovery Driven Planning, Innovation

INTRODUCTION

The work addresses the issue of firm processes for innovation development, by analysing and comparing Stage-Gate and Discovery Driven Planning (DDP) models. As known, the former - considering innovation as a common business process and, therefore, applying some project management notions - articulates the processes of innovation development in a multiplicity of stages (phases), sets of activities necessary to develop the innovation project, interspersed with gates, checkpoints for the control of achieved results. The structure that characterizes the different gates is similar and consists of inputs that come from the stage that precedes them, of a set of criteria or elements useful to evaluate the project and, finally, of outputs on to which to decide if the project has the necessary requisites to move to the next stage (go/kill decision). The less conventional DDP model proposes a flexible process that aims to minimize the risks/losses connected to the innovation processes and, at the same time, to accelerate their timing and increase their potential. It is a systematic process aimed at identifying, testing and (if necessary) reviewing the assumptions underlying an innovation project. In a dynamic environment, characterized by uncertainty, by multiple discontinuities and by a

strong pressure to continuous innovation, the DDP envisages a gradual and incremental investment of resources, aimed at low-risk (and reduced waste) growth.

THE STAGE-GATE

The Stage-Gate process is a conceptual and operational map for moving new product projects from idea to launch and beyond, a blueprint for managing the new product development (NPD) process to improve effectiveness and efficiency (Cooper, 2008).

Cooper (1994) and his team developed the Stage-Gate by studying how leading companies handled the launch of new products. It is based on the evidence that some projects and project-teams perform better and succeed. Indeed, Stage-Gate was originally developed from research that modelled what these winners do (Cooper, 2004). The research revealed that projects are often afflicted by missing steps and activities, poor organizational design and leadership, inadequate quality of execution, unreliable data, and missed timelines. So they need support in the form of a playbook based on what winning teams do. Stage-Gate is that playbook (Cooper, 2008).

The Stage-Gate supports quick, effective and efficient product discovery or innovation. It is based on the opinion that product innovation is a process that, exactly like the others, can be managed through a process-management method. The Stage-Gate format is based on a series of stages or work stations followed by gates (Cooper, 2008). The stages are where the work is done, the gates guarantee a satisfactory quality.

Stages

Each stage is structured on the following scheme (Cooper, 1994; Cooper *et al.*, 2002):

Activities: they represent the productive/innovative core of the whole process. The work the leader and the team must undertake based upon their plan.

Analysis: it is an integrated analysis of the results of all of the functional activities, derived through cross-functional interaction.

Results: the results of the integrated analysis, which must be completed by the team for submission to the gate.

The Stage-Gate model, in addition to the discover stage, is built on five key stages (Cooper, 1994; 2002):

Stage 0 Discovery: Activities designed to discover opportunities and to generate new product ideas.

Stage 1 Scoping: A quick and inexpensive assessment of the technical merits of the project and its market prospects.

Stage 2 Build Business Case: This is the critical homework stage - the one that makes or breaks the project. Technical, marketing and business feasibility are accessed resulting in a business case that has three main components: product and project definition; project justification; and

project plan.

Stage 3 Development: Plans are translated into concrete deliverables. The actual design and development of the new product occurs, the manufacturing or operations plan is mapped out, the marketing launch and operating plans are developed, and the test plans for the next stage are defined.

Stage 4 Testing and Validation: The purpose of this stage is to provide validation of the entire project: the product itself, the production/manufacturing process, customer acceptance, and the economics of the project.

Stage 5 Launch: Full commercialization of the product - the beginning of full production and commercial launch.

Gates

Each stage is followed by a gate, which is a checkpoint for quality control. The gates deal with three problems of quality: quality of execution, business rationality and quality of the action plan. Each gate is therefore structured according to the following scheme:

Deliverables: Inputs into the gate review - what the project leader and team deliver to the meeting. These are defined in advance and are the results of actions from the preceding stage.

Criteria: What the project is judged against in order to make the go/kill and prioritization decisions. These criteria are usually organized into a scorecard and include both financial and qualitative criteria.

Outputs: Results of the gate review. Gates must have clearly articulated outputs including: a decision (go/kill/hold/recycle) and a path forward (approved project plan, date and deliverables for the next gate agreed upon). At each gate the decision makers have to (Cooper, 1994):

- review the quality of the inputs or deliverables;
- assess the quality of the project from an economic and business standpoint, resulting in a Go/Kill/Hold/Recycle decision;
- approve the action plan for the next stage (in the event of a Go decision) and eventually allocate further necessary resources.

THE EVOLUTION OF THE STAGE-GATE MODEL

The Stage-Gate process (Cooper, 1994; Cooper *et al.*, 2002) is widely implemented in the product innovation process.

As Cooper (2008) highlighted, it is important not to confuse the modern Stage-Gate with the traditional “phased review” process of the 1960s-80s that some companies still use. The phased-review process, endorsed by NASA and others, organized the innovation process into stages, each stage reporting to a function or a department. In spite of the initial intentions, the process almost

doubled the length of development, as it was designed like a relay race with activities in sequence rather than in parallel. As a consequence, there was low commitment to the project from beginning to end by any one group. By contrast, today's Stage-Gate system is built for speed. The stages are cross-functional, and not dominated by a single functional area. This is a business process, not an R&D or Marketing process. The play is rapid, with activities occurring in parallel rather than in series (Cooper, 2008).

Moreover, also due to the visual graphics associated with Stage-Gate, some people see it as a linear model. They miss the point that even if the stages are laid out in a sequence, within each stage activities and tasks are anything but linear. In fact within stages, there is much looping, iterations, and back-and-forth play as the project proceeds; some activities are undertaken sequentially, others in parallel, and others overlapping (Cooper, 2008).

In this fashion, the Stage-Gate model has been applied by several companies in the years to manage the innovation development, and as they faced many challenges in using it, they adapted the model to their own company's need and characteristics.

One of the greatest changes in Stage-Gate over the last years is its *scalability*. It has become a scalable process, scaled to suit very different types of projects with different risk levels. It can manage very risky and complex platform developments as well as lower risk extensions and modifications, and even rather simple sales force requests (Cooper and Edgett, 2005; Cooper, 2006). Some projects were simply too small to push through the full five-stage model, and so they circumvented it.

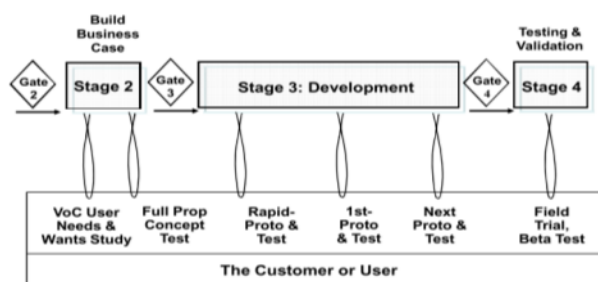


Figure 1. *Stage-Gate Spiral Development* (Cooper, 2008)

Stage-Gate has also become an innovation process much more *adaptable* to changing conditions and unstable information. As shown in figure 1, the concept of spiral or agile development is built in, allowing project teams to move rapidly to a finalized product design through a series of “build-test-feedback-and-revise” iterations (Cooper and Edgett, 2005). Spiral development conciliates the need for a defined, timely and fact-based product definition before development begins and the need to be

flexible and to adjust the product's design to new information and market conditions. Spiral development allows developers to continue to incorporate changes and valuable customer feedback into the design even after the product definition is locked-in before going into Stage 3 (Cooper, 2008).

Stage-Gate has also been modified to include *open innovation*, and to handle the flow of ideas, IP, technology and even totally developed products into the company from external sources, and also the flow outward (Chesbrough, 2003). Companies, such as Kimberly Clark, Air Products & Chemicals, and P&G, have switched to open innovation and modified their Stage-Gate process in order to include this network of partners, alliances and outsourced vendors from idea generation right through to launch (Cooper, 2008). For example, some progressive firms' latest versions of their Stage-Gate systems are now designed to handle externally-derived knowledge assets (Cooper and Edgett, 2007).

An effective Stage-Gate system produces positive results in terms of getting new products and services to market quickly, efficiently and profitability and many companies managed to make it work to their advantage.

DISCOVERY DRIVEN PLANNING

Sethi and Iqbal (2008) observe that Stage-Gate controls have the potential of restricting learning in a new product development project and thus hurting the performance of novel new products. Control on new product development exercised through rigorous gate review criteria increases project inflexibility. This, in turn, leads to learning failure (worsened when the technological environment of the firm is turbulent), which adversely affects the market performance of novel new products.

Unlike conventional management practices, DDP begins with the recognition that "bold but uncertain outcomes are not predictable", with the assumption that you don't have the answer and can't know the result a priori as data don't exist yet (McGrath and MacMillan, 2009). It harnesses the essential discovery process required in high-uncertainty situations, compensating for three cognitive and emotional biases that can distort decision making: confirmation, recency and human biases.

Discovery Driven Planning has definitely reached the mainstream. McGrath in 2013 and then, in 2015, Alexander Osterwalder and Yves Pigneur, who use the concept in their work at Strategyzer, received the #1 achievement award in Strategy from the prestigious management rankings group Thinkers50. Steve Blank, Clayton Christensen, Hal Gregersen, and Eric Ries are on the list of top ranked thinkers (Thinkers50 2017 Ranking), "thus definitely shifting the center of gravity in management to the more entrepreneurial, business model challenging and, yes, discovery driven mindset" (McGrath, 2015).

Discovery driven planning represents an approach to establishing plans for new ventures that quite literally constitute a plan to learn (McGrath and MacMillan, 1995). It requires the interaction of five processes working together: determining the frame (objectives) for the project (framing); establishing competitive and market benchmarks (benchmarking); concrete translation of operations through the definition of operating specifications; documenting and testing assumptions; establishing a milestone planning process.

The process imposes a strict discipline leading to four related documents, to be updated as the venture unfolds (and new data are uncovered) (McGrath and MacMillan, 1995; 2009):

1. reverse financials, i.e., financial documents modelling the basic economics of the business, changing as learning goes on; a reverse income statement starts with the bottom line and works backwards into what the rest of the business must accomplish to deliver that bottom line;
2. deliverables specification, laying out the operations needed to run the business and articulating the assumptions about the activities needed to conduct the project. It is a careful delineation of what needs to be practically accomplished for the project to be successful. The specification of these organizational deliverables connects the financials with those activities to concretely carry out to operate the initiative;
3. assumptions checklist used to ensure the check of assumptions; it is required to make assumptions explicit and therefore visible, thus allowing to share with others avoiding to relegate them to be just one person's opinion. Some typical assumptions are about the business model, the market, the development of the product/service, about competitors, about manufacturing and production, and financials;
4. milestone planning chart specifying the assumptions to be tested at each milestone, a list of checkpoints to be developed with the same reverse thinking previously used.

The key idea is that as the plan unfolds, the "assumption-to-knowledge ratio" is reduced: when it is high, there is much uncertainty and the main objective should be learning fast at the lowest cost; as it shrinks, focus and resource prioritization acquire importance (McGrath and MacMillan, 2009).

DDP involves the systematic investment of time and effort into developing innovation in a pragmatic and low-risky way. "The essential discipline is to specify a future that is both attractive and realistic and then to work backward into what has to be done today, the next day, the next week, and the next month to realize that future" (McGrath and MacMillan, 2009).

COMPARING STAGE-GATE AND DISCOVERY DRIVEN PLANNING MODELS

Stage-Gate and DDP represent two different, largely adopted and very interesting models for managing firm processes for innovation development. Thus it is interesting to try to compare these two different approaches.

One of the main differences between them is related to project flexibility and the inherent learning process. In an analysis based on a survey of 120 projects that used the Stage-Gate model process for new product development, Sethi and Iqbal (2008) found that rigorous gate controls increase project inflexibility, thus restricting learning during the process. Results show that such learning failure adversely affects the market performance of novel new products, especially when the firm has to face a turbulent technological environment. It is interesting to note that such effect is not mitigated by gate conditionality, i.e. a relaxation in gate evaluation, an approach that allows the project to proceed to the following stage of the process even if not all gate criteria are met by postponing such control to a subsequent gate. This result suggests that even in case of less rigorous gate controls, the inherent rigidity of the Stage-Gate approach might actually jeopardize learning during the innovation process. On the contrary, DDP “forces a discipline for learning” (McGrath and McMillan, 1995). DDP approach highlights the role of uncertainty in the innovation process and the need to check assumptions during the entire process. It implies substantial adjustments during the project execution. As said, the process requires to compile an assumption checklist so that assumptions are discussed and eventually questioned and reviewed before it is too late. Assumptions are converted into knowledge and incorporated into the evolving plan as the process unfolds. In this way DDP forces managers to articulate what they don’t know, visualise main uncertainties of the projects and address them at the lowest possible cost. Such a process should allow managers to reconfigure plans as new data are uncovered and to “kill” flawed projects as fast as possible when key assumptions reveal to be wrong.

Such a different approach implicates also a relevant difference in the commitment of resources. Stage-Gate is usually based on an up-front funding of the project, while DDP approach requires to postpone major investments until the results of the analysis of checkpoints proves that the risk is justified. Indeed, DDP checkpoints differ from S-G model’s gates resulting in a Go/Kill decision, and play a key role in the process of innovation development as they allow a gradual and incremental investment of resources as the project unfolds, thus reducing waste.

Moreover a difference between the two models emerges in the management of different projects. The Stage-Gate model assumes that all projects are equal and can be managed using the same set of rules for each one. On the contrary, DDP approach emphasizes differences between projects and the

subsequent need to treat each of them as unique. Indeed, in a recent interview on HBR (Gallo, 2017), McGrath highlights that no single tool can be used for all projects and therefore even DDP isn't applicable to all types of projects. DDP is more appropriate in case of high level of uncertainty, when managers have to make several assumptions that need to be tested incrementally. More conventional approaches can be used when the level of unknown has reduced and the project feasibility is proven.

Following this line, we can argue that the two processes might be used in different phases during the process for innovation development. DDP is more suited for the early stage of the innovation process, which is characterized by high uncertainty and is mainly based on assumptions. Stage-Gate model can be used in the implementation of projects when uncertainty and the inherent risks have been reduced.

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OMNICHANNEL EXPERIENCE – TOWARDS SUCCESSFUL CHANNEL INTEGRATION IN RETAIL

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ABSTRACT

This study examines omnichannel experiences in retail. The retail market has changed significantly since digitalization: Internet markets reveal price differences, provide product information, and offer comparison possibilities. The purpose of the present study is to theorize how retailers should integrate online and offline store channels to provide the best omnichannel experience. Empirical data for this study were collected through 15 semi-structured themed interviews conducted with customers who have visited both the online and the physical stores of the same retailer. The data were analyzed through content analysis. Overall, the findings provide several managerial insights into omnichannel management. According to the results, customers expect online and offline channels to support each other. They are using their mobile devices to visit online channels while in physical stores to compare prices and products and expect to see the same products and prices in both channels. They want their experience to be seamless. The results also highlight the importance of channel integration in enhancing positive brand experiences.

Keywords: Brand experience, omnichannel retail, omnichannel management

INTRODUCTION

According to Deloitte's (2018) forecast for 2018 many changes will occur in retail markets. The growth of online retailing is continuing, and it is going to have a great impact on traditional retail players. The number of physical stores will decrease, but they will still have important role in retailing. Customer experiences are now more important than ever, and digital technologies will have a key role to the store experience.

Consumers are spending more and more time on smartphones relative to other devices. Typically, they conduct searches on mobile devices and make purchase in physical stores (Singh and Swait, 2017). Today, 8% of time spent online is related to shopping (Mander and Jason, 2017). According to eMarketer's forecast (2017), while 80% of retail sales still occur in physical stores, 80% of all sales consist of web-enabled brick-and-mortar shopping. According to Brynjolfsson, Hu, and

Rahman (2015), more than 50% of cell phone owners in the United States have smartphones, and over 70% of them have used their mobile devices for comparison shopping. Thus, understanding the role of mobile technologies in retail has become critical.

This research of omnichannel experiences can help managers understand the nature of online and physical store integration and provide resources to improve customer experiences. Consumers are searching for information from several sources and are using multiple-channel combinations, including stores, catalogs, and the internet (Shim et al., 2001). Technology is breaking barriers between different retail channels, and consumers are shopping in multiple channels and expecting seamless shopping experiences between channels.

The purpose of this study was to determine how retailers should integrate their online and offline store channels to provide the best retail brand experience. The research focuses on online and offline store images and their effects on brand experience and examines channel integration from the perspective of omnichannel management. The specific research questions in this study are as follows: 1) What are the characteristics of the omnichannel experience? 2) How should retailers integrate online and offline channels to create a satisfying brand experience? 3) How should firms use digital technologies to improve customer experiences in physical stores?

First, the conceptual framework and methodology are presented. In the ensuing section, the findings as well as theoretical and managerial implications are discussed. We end with presenting the limitations of our study and proposing several areas for further research.

RETAIL BRAND EXPERIENCE IN AN OMNICHANNEL ENVIRONMENT

Researchers have suggested various definitions of brand experience. Zarantonello and Schmitt (2010) described it as customers' subjective and internal responses, sensations, feelings, cognitions, and behavioral responses. For example, a good customer experience plays a critical role when customers are choosing a website from which to purchase (Ha and Perks, 2005). Brand experiences occur when consumers are searching for, shopping for, receiving, and consuming products and services (Zarantonello and Schmitt, 2010). Some experiences are more positive, and the durations and intensities vary between different customers' subjective experiences (Brakus et al., 2009; Zarantonello and Schmitt, 2010). Ha and Perks (2005) show that in the online context, brand experience has an important link with satisfaction and trust. They argue that the brand is connected to intentions for future purchasing in that way.

For approximately 20 years, researchers have shown interest in how retail store images are built up online. Customer experience online is the consumer's response to the stimuli within a website

environment, and it is linked to intention to purchase (Morgan-Thomas and Veloutsou, 2013; Verhagen, 2004). Because consumers are better informed about prices online, obtaining information about additional sellers reduces their costs of search. Communication possibilities and transaction capabilities online have lowered search costs for both customers and vendors (Bakos, 1997; Browne and Durrett, 2004). The literature suggests different factors influencing online store image (see Table 1).

The literature on physical store image (see Table 2) recognizes several factors behind store image and experience. Verhagen and Van Dolen (2009) presented a model for physical store image where they introduce factors behind it. Like their online store image model, it includes service, merchandise, and atmosphere factors, but instead of navigation, it includes the offline layout.

Author(s)	Year	Sample	Key findings
Verhagen and Van Dolen	2009	685 registered customers of one of the largest bricks-and-clicks music retail stores in the Netherlands	Online store image is a combination of four factors: online service, merchandise, atmosphere, and navigation.
Hoffman et al.	1999	Two surveys; 1,555 and 14,014 web users	Consumers do not trust most online retailers and are not interested in giving money or personal information to them. Consumers are worried about misuse of their data and the difficulty of controlling secondary use of their information.
Elliot and Speck	2005	40 college students	Online store merchandise is amount of the assortment, accuracy of the stock, and information about the products offered. Online atmospheres that offer sensory and hedonic stimuli from colors, music, action, and interactivity increase customers' willingness to visit again. Useable online navigation requires clear organization, uncluttered screens, logical flow, and ease of navigation, which should help customers to process product and purchase information, decrease customer's search costs, and conduct faster and more effective searches. Online return policies, privacy policies, and third-party assurances diminish perceived risks, such as misuse of personal data, cookies, and spam.
Lee and Lin	2006	165 members of online communities	Online service quality, linked with clear navigation, is a key driver of customer satisfaction and trust.
Eroglu et al.	2003	328 respondents of online questionnaire	Online atmospheric factors, such as website environment, provide information about the retailer. The atmosphere's effect on customer behavior is indirect, and it is the result of the emotions experienced on the retailers website.
Gefen et al.	2003	213 online shoppers	Trust encourages customers' online business activities by reducing the social complexity, such as undesirable yet possible behaviors of the retailer, the consumer faces in online retail.
McKnight et al.	2002	1,403 undergraduate and graduate students	trust has a link with usefulness of a Web site Website quality and vendor reputation contribute to trust in an online environment.
Childers et al.	2001	274 students in introductory classes in the business school of a large Midwestern university	Easier navigation with product quality information makes consumers less price-sensitive and decreases the psychological costs of shopping, which may make the experience more enjoyable.

Table 12 online store image

Author(s)	Year	Sample	Key findings
Verhagen and Van Dolen	2009	685 registered customers of one of the largest bricks-and-clicks music retail stores in the Netherlands	Physical store image is a combination of service, merchandise, atmosphere, and layout.
Baker et al.	1994	157 students	Service quality is a key component in physical store image. Store merchandise factors, such as quality, styling, pricing, and assortment, influence customers' behavior.
Yoo et al.	1998	294 customers of the two largest department stores in Ulsan, Korea	Physical store characteristics include assortment, price, service, location, facilities, and atmosphere. Returns, repairs, delivery, installation, and refunds are key elements of offline service.
Dabholkar et al.	1996	225 customers of department store chains in United States	Service quality involves physical aspects (appearance and convenience), reliability (fulfilling promises and doing it "right"), personal interactions (helpfulness and inspiring confidence), problem solving, and policy.
Sweeney et al.	1997	Two different samples: an exploratory survey with 609 respondents and a confirmatory survey with 459 respondents	Functional service quality relates to how a service is delivered, responsiveness, empathy, and courtesy, and technical service quality relates to product that was delivered and knowledge about it.
Donovan et al.	1994	60 shoppers of two different stores	If the atmosphere evokes the right emotions, consumers enjoy shopping in the store. They spend more time browsing and are more willing to contact salespersons. They may spend more money than they have planned and are more willing to return to the store.
Zhang et al.	2010	Literature review	Customers are using technologies like ordering hubs, iPads, and display screens to make purchasing easier, which creates a totally new merchandise layout.

Table 13 offline store image

Omnichannel perspective

Recently, Piotrowicz and Cuthbertson (2014) examined the role of information technologies in retail. New technologies, smart mobile devices, and social networks increase the incremental importance of in-store technological solutions. The omnichannel concept is defined as using many channels, like the internet, mobile devices, and physical stores, all within the same transaction process. The shopping experience should be smooth, and because the channels are managed together, customers should be interacting with the brand, not with the channel.

Oh et al. (2012) stated that retail channel integration has positive effects on firms' performance and competences. Both online and physical stores should serve cross-channel consumers, and successful channel integration may improve retailers' performance. In addition, Blom et al. (2017) noted that omnichannel retailing has a positive influence on performance and experience. Thus, we propose that:

P1. Online and offline store images should be integrated smoothly to provide positive experiences.

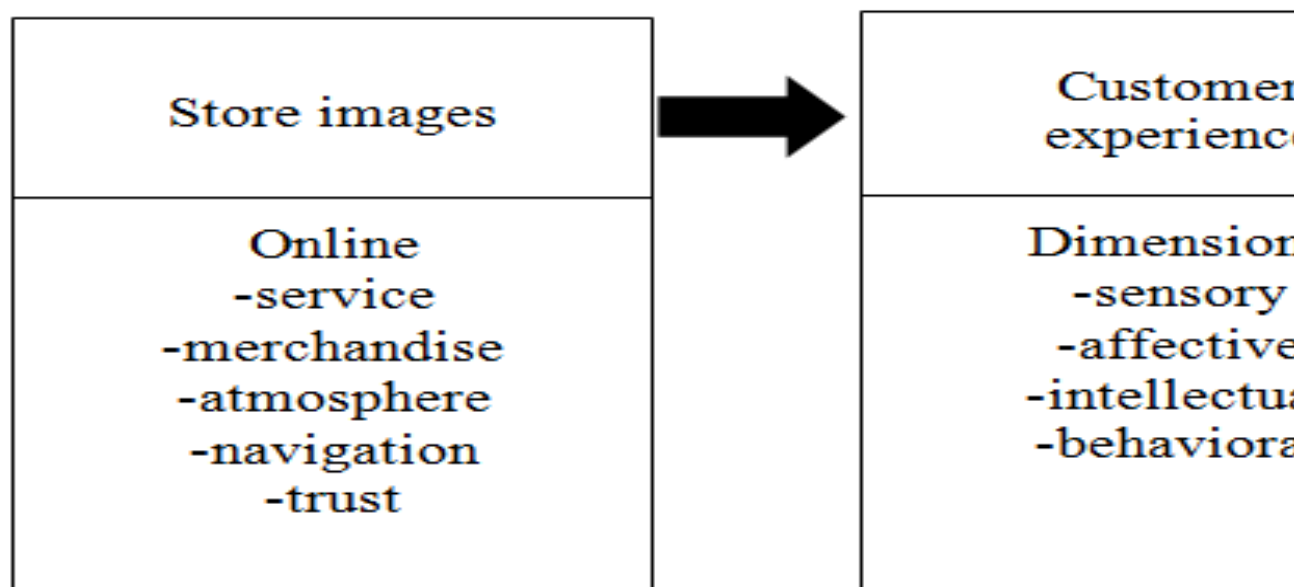


Fig. 1. Formulating customer experiences in an omnichannel context

Piotrowicz and Cuthbertson (2014) reported that channel integration plays an important role in building customer experience. Customers choose channels depending on their current situations, so easy movement among channels is important. Customers are also using their mobile devices in-store. For instance, they may check prices online before making an in-store purchase, search for information, compare products, ask for advice, and look for cheaper alternatives. Customers are able to check

product ratings from social networks or contact their groups to ask questions, and retailers cannot control these interactions.

Verhoef et al. (2015) showed that omnichannel retail is replacing multi-channel retail. Compared to multichannel management, omnichannel management includes more channels. Omnichannel channel management is interactive, and the mass-communication channels include stores, online websites, direct marketing, mobile channels, social media, TV, radio, print, and customer-to-customer communications. These channels should provide a seamless retail experience because they all influence retail customer experience and each touchpoint influences brand and retail performance. Lemon and Verhoef (2016) noted that mobile devices are more suitable for searching than purchasing, and some channels are more useful than others at different stages of the buying process. Hennig-Thurau et al. (2010) stated that touchpoints like one-way and two-way interactions between retailers and customers, such as through social media or word-of-mouth communication, influence brand consideration. Based on these findings, we propose that:

P2. Firms should use digital technologies to improve customer experiences in physical stores.

Dholakia et al. (2005) examined customer behavior in a multichannel retail context and stated that customers typically use the same channels for repeat purchases. If they are switching between channels, they are more willing to switch between similar channels, such as catalogs and websites, than dissimilar channels such as retail stores and websites.

Brynjolfsson et al. (2013) reported factors that improve the omnichannel experience: First, retailers should provide attractive pricing and good content. Second, retailers should gather new data from social, mobile, and nearby establishments. Next, retailers should avoid facilitating direct price comparisons. Making direct price comparisons difficult, such as by providing exclusive offerings, distinctive features, or product bundles, can protect retailers from competitors. Retailers should provide information about their inventory that makes finding products from physical stores much easier. Good channel integration attracts consumers who prefer shopping in multiple channels. Finally, because of competition, retailers must improve their products, services, and prices to succeed. Huré et al. (2017) discovered that all omnichannel touchpoints should be managed specifically but not in isolation. Therefore, we propose that:

P3. Good channel integration encourages consumer to use multiple channels.

METHODOLOGY

This paper utilizes a qualitative approach to investigate omnichannel experiences through one-on-one, in-depth, semi-structured interviews. Participants were selected using a purposeful

criterion sampling method. In this research, the following criteria were used: informants should be adults, both men and women. All informants should have had experience visiting both online and physical stores of the case firms. The age of the interviewees ranged from 19 to 29; people in this age range are the most active in using different channels for shopping. The sample (n=15) was 53% men and 47% women. Over half of the respondents (53%) were in school, and the rest were employed full-time.

RESULTS

Online and physical store images

Our data suggests that both online and physical stores are behind customer's impression about brand. Physical stores are only more important than online stores if the product is not important to the consumer. Some respondents thought that the product that they are buying has an impact on which channel they find more important. In some cases, the online store may be satisfying, but the offline store is not, or the reverse may be true.

"The physical store has a bigger effect. If I visit a physical store and have a negative experience, it has a bigger impact. If I'm visiting an online store and have some problems with the internet connection, it isn't such a big problem for me." — Male, 25

"I think that usually if the offline store is good, the online store is also. It is possible that smaller retailers are not very active in updating their websites, but the service at physical stores is good. I think the physical store is more important to my brand experience." — Male, 27

"If products are not very important for you and you can find them anywhere, the online store is more important. For example, if I'm ordering a package of nails." — Male, 29

The majority of respondents (60%) found the ability to see, touch, and try physical products prior to purchase the most important reason to visit physical stores. Thirty percent of respondents also wanted to get products immediately and found return policies to be better in physical stores than online. In addition, some of the study participants mentioned that offline shopping is an easier way to make purchases than through online stores because the purchasing process is physical.

"When I have to see the physical product. I can see if the size is suitable and try it." — Male, 23

"You can go to Intersport and buy a jacket and then walk out with that jacket and use it instantly." — Male, 23

Respondents set their expectations for physical stores based on their experiences in the same retailer's online store. They expect the same prices in both stores. Also, if the online store's website navigation is not clear and the site atmosphere is not pleasant, customers will expect to have a similar experience in the physical store. Some respondents note that in this digital age, every physical store should also have an online store.

"Prices should be same as in the physical store if the retailer is same. That way I can find the same product with the same price from the physical store." —Male, 26

"Online and physical stores should look the same. If the retailer has good quality online, I will expect the same in the traditional physical store. The images should be convergent." —Male, 29

"If the web store's layout doesn't make a good impression or if there is news from last year and I notice that the site isn't updated, I will think that prices and products are not correct. The website could have positive or negative effects. The layout doesn't have as big of an effect as the updating, but if it is confusing, I will choose another web store. The maintenance is important." —Male, 27

Why are customers visiting online stores? The larger assortment was the main reason for seven respondents. They noted that online stores offer more options, including the ability to visit international stores. Moreover, as with physical stores, some of the study participants see online shopping as an easier way to make purchases, one that saves time and effort because they can visit online stores from their homes.

"There are more products available because I can also visit foreign markets." —Female, 21

Another key experience outcome from online stores was that comparing products is easier online. They see more alternatives in a shorter time. Customers are comparing products, prices, and assortment among different stores.

"I visit online stores because comparing products is easier. You can compare, for example, prices and assortments between stores. From one place you can see many different stores." —Male, 22

Channel integration

The importance of seamless channel integration is undeniable. The experience narratives point out the relationship between the experienced problems and differences in prices and assortment. Respondents noted that sometimes prices are different between the physical store and online store. If a retailer is offering a certain price in its online store, the customer is expecting the same price if he

walks into a physical store. Some retailers also have problems updating their product availability on their websites, and empty shelves disappoint customers. However, 40% of respondents did not face any problems at all if a retailer had both online and physical stores.

“It feels like they don’t update product availability in real time. You are expecting that there should be still some products left but go to the store and find empty shelves.” —Male, 27

“I’ve checked that there are products in the store, but when I went to the store, there weren’t. And then they told me that there wasn’t anything left in the warehouse.” —Female, 21

“There have been situations in which the price is lower online. But the price difference is usually so small that I’ve bought the product from the physical store anyway.” —Female, 29

Some of the study participants thought that online and offline stores should support each other by allowing consumers to search for or try products online and purchase them offline. If retailer only has a small amount of stock in its physical store, it might be acceptable to have lower prices in the online store.

“There should be more physical stores where you can try products before you order those products with short delivery times. There is only a small stock in the physical store, and the products will be shipped from a bigger central warehouse.” —Male, 29

Customers are often searching for arguments to confirm their purchase decisions. In some product categories, online information is not sufficient to allow them to make a decision, and customers are trying to find more information from physical products in physical stores.

“Sometimes I find products from web stores, but I’m not sure if the size is right. I would like to see how it would look if I wore it. I might go to the physical store if I wasn’t sure about the purchase and buy it there.” —Female, 25

Digital technologies

Digital technologies play a key role in customers’ shopping experiences today. The findings reveal several important factors related to the use of digital technologies in physical stores. The role of traditional channels is becoming more indistinct, as two-thirds of customers are using their mobile devices in traditional physical stores. When respondents were asked how they use their mobile phones when they are visiting physical stores, comparing products (33%) and searching for information (33%) were the main answers. Customers like comparing products and checking prices from different stores. They are also finding more information about products, especially if they are making an impulse purchase.

“Usually I’ve done comparing before I visit the store. But if I’m making an impulse purchase, I will do quick check to make sure the price is correct.” —Male, 27

“I’ve compared products. I’ve checked different options, for example colors, and done some price comparison.” —Male, 23

Retailers have many opportunities to improve the shopping experience with digital technologies in physical stores. Overall, respondents said that stores should offer more product information through digital technologies.

“Some extra product information. If you were buying sports equipment, for example, you would have more information about skis and waxes. You would be able to search for waxing reports.” —Male, 29

“If there is something that I don’t have enough knowledge about and no salesperson available. For example, if I’m buying Frisbee-golf discs and don’t have a clue about them, I need some advice. Maybe I can get some information from digital solutions?” —Female, 24

In addition, respondents pointed out that retailers should offer digital solutions to facilitate product comparing. However, the ability to compare prices is a double-edged sword: If the retailer is not the price leader, consumers might choose other options.

“If the retailer is marketing its stores as a price leader, could there be an iPad where customers can check and compare prices?” —Male, 27

Respondents said that they would like to receive more personalized and targeted marketing. They noted that retailers today are able to personalize messages and content through technology.

“I get offers to my email. Maybe they could make more personal offers. Today, it is possible.” —Female, 25

Respondents also hoped for applications to help customers locate products in stores. Easier locating would save customers time and effort.

“For example, in big supermarkets there should be something that helps you to find products so you don’t have to walk through the whole store.” —Female, 29

DISCUSSION

Theoretical contributions

We proposed that online and offline store images should be integrated smoothly to provide positive experiences. As theory (Piotrowicz and Cuthbertson, 2014) suggests, customers expect online and offline channels to support each other. As Blom et al. (2017) proposed, omnichannel retailing can have positive effects on the customer experience.

We proposed that firms use digital technologies to improve customer experiences in offline stores. Our results support Verhoef et al.'s (2015) findings that digital technologies offered by a retailer facilitate shopping and improve customer experiences. For example, retailers can use digital technologies to offer information, facilitate product comparison, or help customers locate products. Our results underscore the fact that retailers can reduce the negative effects of crowd in physical stores with digital self-service technologies, as Piotrowicz and Cuthbertson (2014) noted. Customers are expecting service, but that is not always possible because of the crowd. With digital technologies, retailers can offer some of the same benefits that salespeople do. If customers are able to find information in another way, they will not have a critical need for service representatives. Lemon and Verhoef (2016) also stated that mobile channels are better for searching than for actually making purchases, and our results support their observations.

Our last proposition was that the good channel integration motivates consumers to use multiple channels. According to our results, the online channel is seen as an easy place to make purchases. Customers want to save time and effort. The study supports findings of Brynjofsson et al. (2013) that product comparison is easier and the assortment may be bigger online. With digital technologies, retailers may be able to offer some online benefits in physical stores as well. According to Verhoef et al. (2015), customers still want to see physical products, and this study strongly supports their findings.

Managerial contributions

According to the findings of this study, retailers can differentiate their brands from competitors by offering superior experiences. Positive customer experiences satisfy customers, which leads to loyalty. Thus, retailers should develop retail channels that improve customer experiences. Not only online and offline store images but also other channels, such as conversations on social media, newsletters, media, and product reviews, are important. Customers are seeking seamless omnichannel experiences. They want to browse and compare products with their mobile devices while they are in

physical stores. With digital technologies and mobile applications, retailers can facilitate the information search process, thereby improving customers' experiences.

According to this study, problems with customer service were the most important driver of negative customer experiences in physical retail stores. With digital solutions, retailers can offer some of the same benefits that service representatives provide. Customers are searching for support for their purchase decision from service representatives, and digital technologies can help customers to find information and compare products. If customers are able to find same information in another way, they will not have a critical need for service representatives.

In terms of managerial implications, our results indicate that with seamless omnichannel experiences, a retailer can make customers loyal to its whole brand, not only to its online store. The main challenge is how to integrate all the channels. This study shows clearly that channels should interact with each other and should not contain contradictory information.

Limitations and future research

It should be noted with regard to the validity of this study that the theoretical framework was tested with only 15 interviews. The interviewees were local citizens, and therefore it is not possible to confirm that the set of participants is a representative sample of all customers. Thus, future studies should collect more empirical data about the topic.

These limitations present opportunities for further research. The omnichannel perspective is quite a new topic in marketing research, so there is not much research about it. New technologies are developing all the time, and customer behavior changes with these new solutions. The omnichannel perspective should be further researched and the theory updated as technology develops.

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DUAL PERSPECTIVES ON THE ROLE OF ARTIFICIALLY INTELLIGENT ROBOTIC VIRTUAL AGENTS IN THE TOURISM, TRAVEL AND HOSPITALITY INDUSTRIES

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ABSTRACT

Robotics and artificial intelligence are challenging extant business services and fundamentally impacting business relationships and processes. While studies have elaborately investigated social robotic interactions in medical and health-related domains, studies are limited on artificially intelligent robotic virtual agents (AIRVA) and their impacts on consumer behavior in tourism and hospitality services. Building on the theories of user experience (UX), user interface (UI) and customer experience, this study conceptually examines the dual-value effects of AIRVA to the customer and the firm. It analyzes the customer journey and highlights critical touchpoints AIRVA deepens the customer experience. It also discusses specific contexts AIRVA impacts business process. It further evaluates challenges facing its adoption and makes critical recommendations to practitioners and academics on how to enhance its adoption in the tourism and hospitality industry.

Keywords: robots, artificial intelligence, customer experience, chatbots, recommender systems, privacy, touchpoints, tourism, travel, hospitality

INTRODUCTION

Unlike some decades ago, recent trends indicate that the tourism and hospitality industry is embracing robotics and artificial intelligence. For example, the Hen na Hotel in Japan is staffed and run by robots. Another example is "Taste and Aroma" restaurant in Guiyang, Guizhou Province, China. Furthermore, chatbots have been deployed by KLM, Hilton, Radisson Blu, Marriott Hotels, Edwardian Hotels, etc. According to a study by Travelzoo (2016), 68% of travelers welcome robots as room service staff, while 73% and 69% are happy to be served by robots as porters and waiters, respectively. The information-intensive nature of the tourism and hospitality industry and high level of customer contact within the industry underpin the great need for automation to deliver consistent quality service. The

deployment of artificial intelligence has enormous potential for the tourism and hospitality industry, particularly considering it can give more insight and provide clearer understanding of customers' behaviors before, during, and after trips. Understanding these behaviors highlights consistent, personalized quality service. Despite recent growth in the adoption of robotics and artificial intelligence by tourism and hospitality firms, the academic literature remains very limited (Tung and Law, 2017). To this end, the role of artificial intelligence on both customer experience and business process remains unclear. Accordingly, from the perspectives of tourism and hospitality services, the objectives of this conceptual study are: 1) to examine the role of artificial intelligence on business process, 2) to examine the effect of artificial intelligence on customer experience, 3) to identify challenges facing its adoption and offer recommendations to practitioners and the academia.

CONCEPTUALIZATION OF THE ARTIFICIALLY INTELLIGENT ROBOTIC VIRTUAL AGENT (AIRVA) IN TOURISM AND HOSPITALITY SERVICES

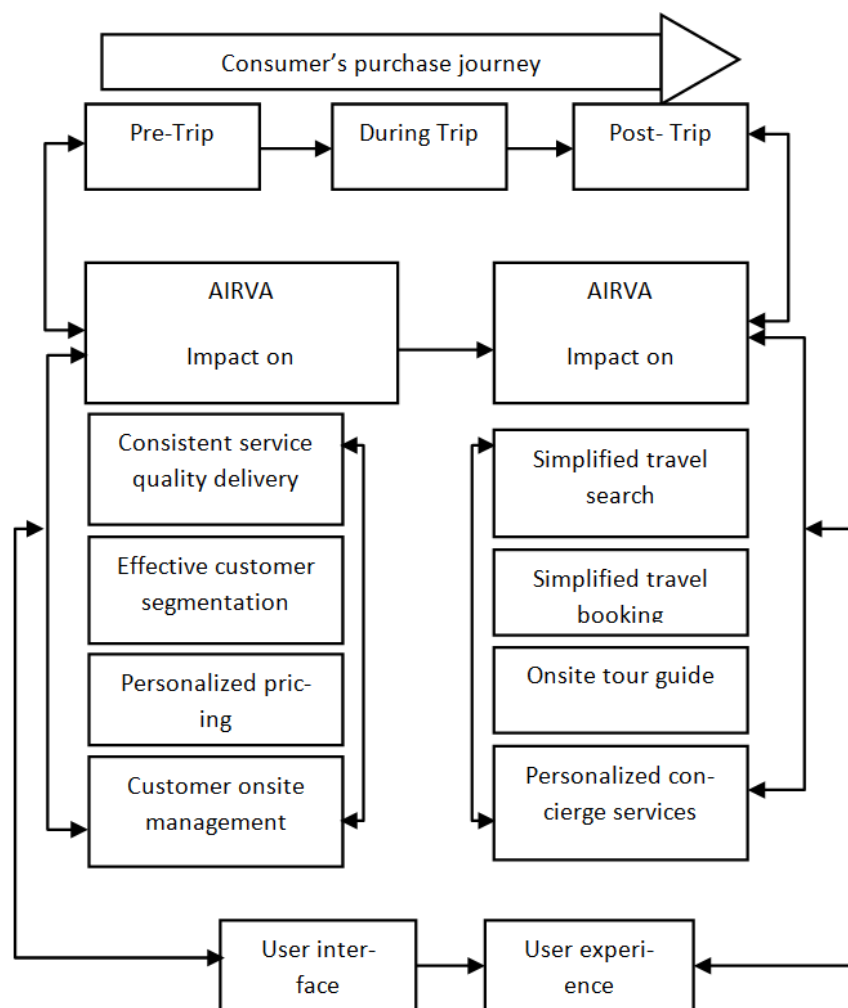
The domain of robotics research is vast and often confusing, especially to those outside the technical discipline. Accordingly, situating this article within a discussion that clarifies an understanding for both those in the technical and particularly in the business disciplines is critical for its successful adoption in a non-technical application domain. Generally, the term *robots* refer to autonomous machines that independently carry out a specific task (Decker, 2008). Similarly, robotic virtual agents are software agents “not physically present and are only digitally embodied with the graphics of a robot” (Tung and Law, 2017, p. 2500) and exists in the forms of text or voice. On the other hand, *artificial intelligence* consists of algorithms embedded in computer programs that enhance the completion of tasks that otherwise require human intelligence, such as learning, perception, problem solving, language understanding, and logical reasoning (Frank *et al.*, 2017). With scientific breakthroughs in artificial intelligence, robotic virtual agents can perform tasks such as customer service and recommendation system. Examples of such include chatbots, recommender systems, and web and app platforms. Thus, in the context of this study, artificial intelligence-enabled platforms such as chatbots, recommender systems, and web and app systems shall be referred to as *artificially intelligent robotic virtual agents* (AIRVA).

USER EXPERIENCE AND USER INTERFACE WITH AIRVA

Tourism, travel, and hospitality can be very emotionally charged, yet very rewarding. Consumers are getting demanding, and service providers are expected to meet these ever-increasing desires by improving the experiences of their customers. Thus, user experience (UX) is considered the creation and synchronization of the elements that affect how users engage with a particular company with the intent of influencing their perception and behavior (Unger and Chandler, 2012). Olaleye *et al.* (2017) summarized it as all aspects of the end user's interaction with the company, its services, and its products. Within the perspective of travel and tourism, there are many touchpoints at which UX can be considered crucial, starting from booking the hotel room and room service to returning to the destination. Research regarding user interface (UI) often occurs in three key themes: websites for bookings, self-service technologies (SST) (Kim and Qu, 2014), and human-robot interaction (HRI). Sun *et al.* (2017) provided an updated comprehensive review of website evaluation studies in hospitality and tourism and found that most of the articles generally discussed UI, while Zalama *et al.* (2014) introduced Sacarino, the service robot that works in a hotel providing information for guests about the hotel's services and accompanying them through the hotel's spaces.

The UI interface is often discussed in conjunction with UX, as it encompasses the physical appearance of the device and the ease with which the user interacts with the device (Olaleye *et al.* 2017). Often, these interactions can be very complicated, and they are getting more intricate and detailed. For instance, bookings can be made on mobile phones, and check-ins are done using self-service technologies and automated services. In all these, the user engages with the technology over an interface, which is the "part of the computer and its software that people can see, hear, touch, talk to or otherwise understand or direct" (Galitz, 2007, p. 4). This further reiterates the importance of a well-designed UI to improve the experience of consumers as they engage with these technologies. Adding all together, UX and UI are packaged to deliver a holistic and satisfactory customer experience (CX). CX theorists posit that it constitutes a multifaceted construct encompassing the cognitive, emotional, behavioral, sensorial, and social components of the consumption episode (Verhoef *et al.*, 2009). Thus, Lemon and Verhoef (2016) contend that satisfaction, consistent service quality, customer focus, and customer engagement are the critical antecedents of CX. Within the context of AIRVA in tourism and hospitality services, its conception, design, and delivery should target the total CX. First, customer interaction with the interface should be simplified, and all necessary information for ease of use

communicated to the customer. For instance, though Facebook uses natural language processing (NLP) to promote chatbots, experts have faulted the use of NLP and recommend a simplified natural language understanding (NLU) that can deliver a more scintillating CX through a voice interface (LeCun *et al.*, 2015). Second, advanced features that enable language recognition and processing can perform more complex tasks. With personalized information, the interface can dynamically handle all tasks based on the context of the user. Third, the interface for AIRVA for recommendations should be able to provide travel advice, tour guide information, and concierge services that integrate the personality of the customer. Thus, automatized and personalized information should always be available at critical points of need without the necessity of pushing a button or pressing a key on the



device.

Figure 2. Conceptual Framework of AIRVA in Tourism and Hospitality Services

The Role of AIRVA on business process

Artificially intelligent robotic virtual agents have significant roles to play in the business process management. As shown in the conceptual framework in Figure 2, through cognitive intelligence, four key impacts of AIRVA on business processes are identified which highlight the wide scope of intelligent assistance it offers.

Consistent Service Quality delivery

Service quality is a critical customer evaluation metric for patronage (Shafei and Tabaa, 2016). With AIRVA, firms can anticipate a failure before it happens. AIRVA offers the possibilities of standardising service engagement and delivery, ensuring that quality service is delivered at every touchpoint and contributing a major source of innovation (Huang and Rust, 2018) which could be in form of an assistive robots with functional assistance to humans, through physical interaction (Feil-Seifer and Mataric, 2005). With the help of available data through chatbot interaction and other touchpoints, the firm can predict imminent service failures and take all the necessary steps to correct them. In addition, there are the possibilities of promptly dealing with customers' request, even if serving customers across the globe. Chatbot recognises pattern of request and learn from these interactions to always improve the customer experience.

Effective Customer Segmentation

With the machine learning capabilities of AIRVA, it has the ability of understanding patterns of request and can segment customers and provide a personalized answer to their request. The analytical, intuitive, and empathetic features are acknowledged (Huang and Rust, 2018) which highlights the possibility of understanding customer group with special needs or request for their journey, either through keywords identified during engagement and their frequent decisions and preferences (Maruti Techlabs, 2018). AIRVA can augment the situation to avoid any disruption in service provision. This ensures 'cost-effective service excellence' to different customer groups (Wirtz & Zeithaml, 2018) whose specific needs have been met.

Personalised pricing

Building on the effective segmentation, a unique and personalised pricing can be offered to individual customers taking into consideration previous engagement and personal situation. Cost comparison can crawl the website and gather information about prices of services from competitors and thereafter offering a customer a dynamic pricing that reflects loyalty to the company. Furthermore, through artificially intelligent-recommender systems, personalised deals and offer can be provided, thereby maximising the revenues from each customer (Pounder, 2015).

Customer Onsite Management

AIRVA is conceptualised to build on various engagements and interactions with the customers with the aim of optimising and managing customers' requests. With the potentials of performing even the intuitive and empathetic tasks (Huang and Rust, 2018) coupled with a better understanding of

interaction, AI enabled-chatbots can initiate a conversation based on previous engagement and learnt pattern. Furthermore, onsite customer management affords the firm the opportunity to provide innovative services and ensures that the customer derives optimal satisfaction while on the trip. Thus, a customer's inquiries, questions, and concerns will be addressed with speed. However, in becoming an integral part of the onsite management system, firms must acknowledge the learning process of the AIRVA and consumers attitude especially with regards to acceptance and trust (Čaić *et al.*, 2018).

THE PURCHASE JOURNEY AND CUSTOMER EXPERIENCE

A broad stream of marketing literature conceptualizes the consumer decision process as a purchase journey (Lemon and Verhoef, 2016). Traditionally, the five-stage model has dominated the marketing literature for decades (Peters and Mennecke, 2011). These stages include problem recognition, the information search, evaluation of alternatives, the purchase decision, and post-purchase decision. At the problem recognition stage, the consumer recognizes a need triggered by internal or external stimuli. The consumer proceeds to the next stage by searching for available information on how to satisfy the need. Information sources comprise the personal (e.g., family, friends), commercial (e.g., firm's commercial message), public (e.g., mass media), and experiential (e.g., personal contact with the product or service). However, some scholars have contended that this process is relative (Darley *et al.*, 2010), with individual characteristics, social influence, situation and economic factors, and online environment critically determining each consumption episode. To stimulate the five-stage process model, scholars have proposed the attention, interest, desire, and action model (AIDA model) (Hassan *et al.*, 2015). The model postulates that marketing messages attract attention and thus stimulates interest in the product. The consumers who see that the product or service fulfills and satisfies their needs move a step further to desire the product. The process culminates in action with a product purchase.

However, within the tourism and hospitality body of knowledge, the consumer journey has been conceptualized to comprise the pre-trip, during-trip, and post-trip stages (Fotis *et al.*, 2012), with each constituting a significant step toward fulfilling the overall travel plan. Specifically, the pre-trip stage constitutes all activities the consumer engages in before the journey. Generally, tourism is a high-involvement product, that is, it requires extensive thought due to its hedonic nature because the consumer wants to make the best out of the

decision. To this end, the consumer engages in an extensive information search. Available sources of information include family and friends, mass media, social media, and firms' commercial messages. Such information helps the consumer to understand the price of the travel product and specific activities on offer. Additionally, the consumer might also find out general destination-related information such as weather, security, competitive offerings, visa requirements, time zone (in case of a distant journey), mode of transportation, and the intra-destination transportation system. Having obtained the necessary information, the next stage is the experience during the trip. Within this stage, the consumer desires the best travel experience. This is the critical experiential stage that emotionally connects the consumer with the destination. Accordingly, scholars have conceptualized how specific tourism experiences emphasize activities the consumer engages in within such destinations and the necessary items of belonging required (Tung and Law, 2017). Thus, backpacking, rural, adventure, culture, nature, hiking tourism, and so on require specific items for the best experience. In some cases, the tourist is provided with a tour guide who gives historical explanations of the key areas within the destination. Commonly, tourists take pictures of such experiences as a reminder and reflection of the activities that took place within the destination. Finally, post-trip activities constitute a reflection about the events that took place while on the trip. Most consumers savor the trip experience by going through the photos and video clips they took while on the trip. As a way of expressing their emotion and informing their friends and family of the trip, some of the contents are posted and shared on social media platforms. Using these platforms, they also share textual reviews of the most pleasant memories of the trip and specific experiences they did not enjoy. Interestingly, in specific points within the customer journey, AIRVA deepens the tourist's experience through the following ways:

Simplified Travel Search

Travel search is very peculiar in hospitality and tourism sector because it is the foundation of traveler's itinerary plan and any failure at this stage can make the proposed journey unsuccessful. Searching for a hotel could be cumbersome due to elongated travel dates, multiple destinations and multiple booking sites (Gavalas *et al.*, 2014; Nicoli and Papadopoulou, 2017)). The complexities of existing travelling search engine demand a stress-free and easy to use travel search that can lead the travelers in a systematic manner for a successful booking. Time is precious and most travelers do not have enough time to merry-go-round the search site without a result. Simplified travel search is now possible through artificial intelligence algorithms that converge options based on the travelers'

location and past travelling behavior. To enrich the traveler's experience, there is a need for more search content and filtering tools. This will enable the travelers to filter their options and take a quick decision regarding the hotel rating, price and destination results. Simplified travel search utilizes a smart and simple search interface with advanced machine learning metasearch that pulls information from the different sources regarding the hotel, airline, world popular attractions locations and alert for the good, the bad, and ugly situations of the desired destination. The most interesting and remarkable aspect of simplified travel search is conversational search. With a voice chatbots, it is possible to search for information in respect of a vacation package, business visits or tourist journey. In real time a traveler can engage a Chatbot in a search conversation without distraction or fatigue of typing and brain racking.

Simplified Travel Booking

Travel booking could become a herculean task, especially when it is a single or group booking with some multiple places of visit. The intervention of artificial intelligence to solve these problems and simplify the travel booking is exceptional. Artificial intelligence has the potential to make life easy for travelers in travel booking and make the navigation simple and convenient. Attention is being shifted gradually from traditional search engine to bot engine in hospitality and tourism industry. Artificial intelligence has positively impacted the online booking process remarkably in the reservation system, transforming channel management, metasearch and incorporate analytics which is very useful for the business owner and the traveler. Artificial intelligence makes traveler personalization easier. This innovative leap is an added value to travelers' experience and it is the future of travelers' tension-free booking. Most of the airlines have introduced conversational chatbots for travel booking. A traveler can pose a booking question to the chatbot by giving a specification of the date, time, location (to and fro), price, class, preference and special services without rigorous typing and navigation (Ahmed and Singh, 2015).

Onsite Tour Guide

The tour guide is a tourism specialist that is commissioned to lead and direct tourist to a place of interest to allay fear and build trust for a successful tourism (Wang *et al.*, 2014). The tour guide is important personnel in a tourist journey and they function in a different capacity. A tour guide could be onsite guide, city guide, linguist guide, freelance guide and a driver. The scope of an onsite guide is limited to a building or a specific area and the tour narration and low-intensity interpretation (Hu and Wall, 2014; Healy *et al.*, 2016) could be on foot or by vehicle(s). The onsite tour guide can also employ artificial intelligence to make the experience of tourist memorable. Thus, AI enabled-chatbots and recommender systems can perform the function of guiding, providing explanation on important places and directing the tourist to important attractions within the destination. Similarly through

predictive analytics, intelligent recommendations, data gathering and sentiment analysis AIRVA can provide historical explanations that tie the tourists to the mood and ambience of the destination.

Personalized Pricing

Selling price is a crucial aspect of hospitality and tourism sector and the type of pricing strategy adopted could enhance travelers experience and motivate their loyalty (Richards *et al.*, 2016). Personalized pricing or dynamic pricing is time-sensitive and lifestyle conscious (Yaghmaee *et al.*, 2016). It could be low in the morning and high at noon or vice versa and its relevance is increasing in hospitality and tourism industry (Anderson *et al.*, 2015). Artificial intelligence can boost the impulse of personalized pricing through price comparison between lower and higher price (rate match). This will prevent the travelers from losing rate parity as the dynamic rate match algorithm reveal the best rate to the travelers. Real-time price intelligence will do the magic for the travelers and impact the travelers booking experience positively and excellently.

CHALLENGES FACING THE DIFFUSION OF AIRVA

In spite of the above benefits to the firm and the customer, the adoption of AIRVA remains low. Though there may be several challenges facing the diffusion of AIRVA in the tourism, travel and hospitality industries, cost of adoption and attendant privacy and security concerns of customers' data are most critical.

Job security and cost

We have considered the upsides of robotics diffusion; it is also necessary to discuss the downsides of AIRVA in tourism and hospitality services. The emergence of service robots such as chatbots, robot porters, robot bartenders, robot concierges, delivery robots, conveyor restaurants, self-service information check-ins, and check-out kiosks are growing with solutions. Nevertheless, hospitality industry employees fear that the introduction of AIRVA will cost them their jobs (Ivanov and Webster, 2017). Due to the disruption of service robots in the hospitality industry, the cost of building an effective robot may pose an initial challenge despite its potential return on investment in the future. Different costs are associated with robot procurement such as acquisition costs, installation costs, software update costs, robot mobility costs, specialist hiring costs, and staff training costs. The cost of a robot depends on the manufacturer and configuration. While comparing humans and robots, it is obvious that the cost of the robot is higher at the initial stage and the cost of engaging hospitality and tourism employees at a later stage will be higher because of the incremental expenses of promotions and incentives. Presently, it is easy for the large hospitality industry to adopt robotics and AI with ease, but the small and the medium hospitality industry adoption rate may be slow due to the financial commitment.

Security and Privacy Concerns

Privacy and security of customers' data constitute ethical issues about which scholars and practitioners cannot reach a consensus. Experts have warned that artificial intelligence constitutes a serious threat and huge risks to consumers' private information (Tene and Polonetsky, 2012). The premise is that artificial intelligence's ability to make good assumptions and recommendations is underpinned by the large amount of data it gathers. These data are often collected without the consent of the consumer. Thus, quoting Elon Musk, "AI is a fundamental risk to the existence of human civilisation" (Fast and Horvitz, 2017). That is, Musk contends that the only way to avert the imminent existential threat to humanity is for governments and regulatory bodies to proactively come up with strong policies to regulate the proliferation and use of artificial intelligence.

CONCLUSION, IMPLICATIONS AND FUTURE RESEARCH OPPORTUNITIES

Previously, consumers may have had to wait for several minutes to speak to their service provider, or send an email that may not be replied for several days. One of the greatest strengths of a chatbot is that it can answer a customer's questions immediately. They also never become tired or require a break (Alleycat, 2017); are faster at giving real-time responses to customers, and eliminate any hesitancy that might occur in or during the purchase (Methew, 2016). Through chatbots, consumers are able to receive the help they need in their purchasing cycles, and this often leads to an enhanced positive consumer experience. Chatbots have also led to a decrease in service failure as staff can spend their time solving complex queries while the chatbots deal with the repetitive and low level enquiries. As a matter of fact, this leaves several implications for practitioners and academics.

Managerially, despite the recorded success of robots so far, hospitality industry stakeholders are still anticipating an intelligent automated future that will pave the way for a collaborative robot, a scenario where different robots can work together to render intelligent service. For instance, the integration of artificially intelligent chatbots, recommender systems and virtual reality will deliver a more memorable customer experience than each of them working in isolation. Additionally, designers should work on cooperative robot technology (robot-to-robot communication) and create an opportunity for open innovation between the academic community and the robotics industry. This cooperation will foster quick solutions to existing problems in the robotics industry. Furthermore, designers should come up with low-cost robots targeting the small and medium hospitality and tourism industry. The key stakeholders in the robotics industry should encourage developing countries through robotics licensing and technology transfer, as this process will be a panacea for the lack of technical expertise in developing countries. There should be more publicity about robotics

innovation among academia and industrial settings. Expertise from varied fields should be involved in robotics development since it is multidisciplinary in nature.

As a nascent domain, the rapid diffusion of artificially intelligent chatbots and other virtual agents has opened up interesting research opportunities from both the firm and consumer perspectives. From the firms' point of view, there have been arguments that artificially intelligent robots will rapidly takeover jobs done by humans with most employees having negative perceptions of robots (Smith and Anderson, 2014). Future research could explore the perceptions of employees, particularly customer service, on the deployment of AIRVA as regards their job security. Furthermore, not all virtual agents are enabled by artificial intelligence. While some are fully automated, others require human assistance to complete their tasks. Accordingly, future studies could investigate return on investment (ROI) on these platforms. For instance, how can firm's measure ROI where a consumer initiates a conversation with a chatbot but completes the transactions offline? On the side of the consumer, future studies could explore the role of gender, age and personality on the acceptance of AIRVA. Importantly, studies within the medical field suggests that inserting a pop-up chatbot on a medical website increases customers' satisfaction and deepens user experience (Fan, Fought and Gahn, 2017). Relating this to the tourism and hospitality domain, will consumers derive same level of satisfaction or more with AIRVA as they do with customer service? Some consumers find it irritating when chatbots pop-up on their devices (Boutin, 2017). Accordingly, how can businesses convince consumers that bots are not intrusive but designed to provide useful recommendations and assistance?

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DERIVATIVE MISCONDUCT ON THE BASIS OF THE BREACH OF TRUST BETWEEN EMPLOYER AND EMPLOYEE

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ABSTRACT

Derivative misconduct (also referred to as residual misconduct) refers to as a situation where an employee possesses information that would enable an employer to identify wrongdoers. When the employee fails to come forward when asked to do so, they violate the trust upon which the employment relationship is founded and may justify dismissal. The right to remain silent is sacrosanct in criminal matters where accused persons are presumed innocent until found guilty. Substantive fairness has to do with the reason of the dismissal. The underlying principle of substantive fairness is that the sanction meted out to the employee must be commensurate with the misconduct of such employee.

The approach involved a derived justification, stemming from an employee's failure to offer reasonable assistance in the detection of those actually responsible for the misconduct. The justification is wide enough to encompass also those innocent of it, and make themselves guilty of a derivative violation of trust and confidence. Justice must not only be done but it must be seen to be done. Non-disclosure of knowledge relevant to misconduct committed by fellow employees is an instance of a breach of the duty of good faith.

Keywords: *Misconduct, substantive fairness, trust and procedural fairness.*

INTRODUCTION AND BACKGROUND

A fair and constructive approach to the management of the conduct and performance of employees can contribute towards a harmonious working environment. Discipline management should be based on clear and known standards and a progressive correction of transgression. Misconduct is one of the grounds recognised by the law that may give reason for the dismissal of an employee. The law promotes the principle of progressive discipline.

Whilst the efficiency of the business operation is recognised as primary, disciplinary action should at the time be for a valid reason (substantive fairness), in accordance with fair procedure (procedural fairness). The dismissal should be effected in a procedurally fair manner.

Derivative misconduct (also referred to as residual misconduct) refers to as a situation where an employee possesses information that would enable an employer to identify wrongdoers. When the employee fails to come forward when asked to do so, they violate the trust upon which the employment relationship is founded. Derivative misconduct may justify dismissal.

The principle of “derivative” misconduct or “residual” misconduct was first formulated in the Labour Appeal Court decisions of Fawu (1994) the arbitrator stated “employee’s silence justifies an inference that he participated or supported the particular misconduct that he had failed to disclose to his employer”. The employee has a duty of good faith to report for example theft, even if he/she was not directly involved therein. An employee’s failure to disclose information that would assist the employer’s investigation amounted to derivative misconduct.

In cases where derivative misconduct is alleged, an employer must show that the employee knew or could have acquired knowledge of the misconduct and that the employee unreasonably failed to disclose this knowledge to the employer.

An employee’s uncommunicativeness in disclosing helpful information may lead to the interference that the employee has something to be justified in instituting disciplinary proceedings derived from an employee’s failure to offer reasonable assistance in detecting those actually responsible for misconduct and through his silence make himself guilty of a derivative violation of trust and confidence.

SUBSTANTIVE FAIRNESS

Section 192 of the Labour Relations Act 66 of 1995 (the LRA) read with s 188(1)(a)(i) thereof, places the onus in the court of the employer to show that it complied with the rationale of substantive fairness. Section 188(1)(A)(i) of the LRA compels a commissioner to ensure that an employer dismissed an employee fairly and in doing so, for him or her, in terms of section 188(2) of the LRA to “take into account any relevant code of good practice” in terms of this Act.

In Schedule 8 of the Code of Good Practice sets out the guidelines for employers to follow when dismissing an employee for misconduct. In terms of item 7 of schedule 8 of the LRA the employer is required to show:

- That the employee contravened a rule or standard (derivative misconduct);
- That the rule or standard was valid and reasonable;
- That the employee knew or should have known the rule or standard;
- That the rule or standard was applied consistently, and
- That dismissal was fair and an appropriate sanction.

An employee cannot be dismissed on mere “suspicious” of dishonestly.

CASE LAW OF DERIVATIVE MISCONDUCT

According to Chauke (1998) refers to as a situation where an employee possessed information that would enable an employer to identify wrongdoers. The case presents a difficult problem of fair employment practice. When the employee fails to come forward when asked to do so, they violate the trust upon which the employment relationship is founded. Derivative or residual misconduct may justify dismissal in appropriate circumstances. Through silence an employer could make themselves guilty of a derivative violation of trust and confidence. Even in common law, conduct inconsistent with that essential of trust and confidence warranted termination of employment (*Council for Scientific and Industrial Research v Fijen* 1996 17 ILR 18(A)). This approach involved a derived justification, stemming from an employee's failure to offer reasonable assistance in the detection of those actually responsible for the misconduct.

In Num (2004) the question to ask is which prerequisites must be met before an employer will be able to prove that an employee is guilty of derivative misconduct. And what are the consequences. The prerequisites for derivative misconduct were clearly articulated by the arbitrator in as in the case of Num (2004). First that the employee knew or could have acquired knowledge of the wrongdoing; second that the employee failed without justification to disclose that knowledge to the employer, or to take reasonable steps to help the employer acquire that knowledge. This approach involved a derived justification, stemming from an employee's failure to offer reasonable assistance in the detection of those actually responsible for the misconduct. Though the dismissal is designed to target the perpetrators of the original misconduct, the justification is wide enough to encompass those innocent of it, but who through their silence make themselves guilty of a derivative violation of trust and confidence. The arbitrator accepted that the respondent act on a balance of probabilities.

This particular form of misconduct "has at its very core and essence that the employee's silence justifies an inference that he participated or supported the particular misconduct that he had failed to disclose to the employer." The requirements for this form of misconduct have been described as twofold. First, that the employee knew or reasonably could have acquired knowledge of the wrongdoing; second, that the employee failed without justification to disclose that knowledge to the employer, or take reasonable steps to help the employer acquire that knowledge. In this matter the Commissioner held that the Employee tried to protect the consultant when she did not report the theft for a period of 3 days but only after the shortage in the float had been discovered. This conduct on the employee's part displays an intention to withhold the information from the regional manager to whom she should report. The fact that this happened in the financial industry was regarded as an aggravating factor. As the trust relationship between the parties had been severely tarnished, the dismissal was held to have been fair and the application was dismissed.

In Chemical Energy Paper Printing Wood (2011) the CCMA found that an employee's failure to disclose information that would assist the employer's investigation regarding its loss of approximately 200kg of platinum per month amounted to derivative misconduct. The applicant was employed as an "operator" in the respondent's platinum processing enterprise at a monthly remuneration of approximately R14, 000.00 when dismissed for an alleged loss of trust on Tuesday, 17 August 2011 (see Item 2 of Part B of form LRA 7.11). In this case, having being alerted to the fact that some of its employees live extravagant lifestyles; the employer initiated a lifestyle audit and found that Mr Hlebela was leading an extravagant lifestyle that he would not have been able to maintain on his salary. The employer concluded that Mr Hlebela was somehow involved in the theft of its precious metals. The employer requested that Mr Hlebela make full disclosure of his assets but he refused to do so. He was therefore charged with having knowledge of the loss of precious metals but not disclosing information that could assist the employer in its investigations into the loss. Mr Hlebela via CEPPWAWU, on 1 September 2010, declared a dispute at the CCMA in Ekurhuleni alleging an unfair dismissal for which he sought retrospective reinstatement with full back-pay as relief.

In cases where derivative misconduct is alleged, an employer must show that the employee knew or could have acquired knowledge of the misconduct and that the employee unreasonably failed to disclose this knowledge to the employer. The Commissioner referred to literature on the topic which found that the dishonesty can include inter alia withholding information from the employer. The Commissioner therefore held that the employer's request for disclosure was eminently reasonable and that Mr Hlebela's silence justified an inference that he participated or supported the loss of the metals. Accordingly, his failure to disclose the requested information following the lifestyle audit amounted to derivative misconduct and his dismissal was found to be fair.

Evident from this case, in instances where there is no evidence against any specific employee, derivative misconduct may become relevant. An employee's reticence in disclosing helpful information may lead to the inference that the employee has something to hide. Therefore, an employer may be justified in instituting disciplinary proceedings derived from an employee's failure to offer reasonable assistance in detecting those actually responsible for misconduct and through his silence make himself guilty of a derivative violation of trust and confidence. Nondisclosure of knowledge relevant to misconduct committed by fellow employees is an instance of a breach of the duty of good faith.

The issue to be decided was whether the dismissal of the applicant, Mr Arnold Hlebela, was procedurally and substantively fair as provided for in terms of s185(a) of the Labour Relations Act, 66 of 1995 ("the LRA"), read with s188(1)(a)(i), s188(1)(b) and s188(2) thereof. If not, the arbitrator was to then apply his mind to the relief sought by Mr Hlebela.

As regards the survey of evidence and argument, the commissioner reflected on charge 2, as reflected on p 115 in exhibit 1, for which Mr Hlebela was found guilty and dismissed. It read as follows: “It is alleged that you have knowledge of the enormous losses of PGMs (‘Platinum Group metals’ – commissioner’s insert) at PMR (‘Precious Metal Refinery’ – commissioner’s insert), but you have made no full and frank disclosure to PMR about what could assist PMR in its investigations herein.”

The guilty finding on this charge must be read with p 117 in exhibit 1 whereby the applicant, after a lifestyle audit which purportedly showed a way of life vastly higher than someone who earned R14, 000.00 per month, was requested to make certain disclosures in his private life to his employer to justify/clarify such a purportedly extravagant way of life.

These included vehicle transactions for 24 months and details of the applicant’s immovable assets, such as houses, flats, townhouses and so forth.

The respondent also sought disclosure on any private company or close corporations and, finally, a list of any valuable items purchased in the last 24 months such as designer clothing and jewellery.

It is further common cause that the applicant, on the advice of his trade union, declined this invitation and that he was eventually dismissed for what is referred to in labour law as “derivative misconduct”, which simply means that Mr Hlebela, on a balance of probabilities, must have known how these vast quantities of precious metals were being pilfered from his employer.

SUBSTANTIVE FAIRNESS

According to Grogan (2001) it is generally accepted that the employer need only prove the commission of the offence on a balance of probabilities. Substantive fairness has to do with the reason of the dismissal. As stated by Grossett (2002) the underlying principle of substantive fairness is that the sanction meted out to the employee must be commensurate with the misconduct of such employee. Mr Hlebela’s dismissal was effected for a fair reason.

Insofar as substantive fairness is concerned, the “Code of Good Practice: Dismissal” as contained in Schedule 8 to the LRA sets out the guidelines for employers to follow when dismissing employees for misconduct. There must be a valid reason for the termination of the contract of employment.

In terms of Item 7 of Schedule 8 the employer is required to show that:

- the employee contravened a rule or standard;
- the rule or standard was valid and reasonable;
- the employee knew or should have known the rule or standard;
- the rule or standard was applied consistently; and
- dismissal was a fair and appropriate sanction.

An employee cannot be dismissed on mere “suspicions” of dishonesty. Offences should be judged on their merits and the employer should take into account the nature of the job and the circumstances surrounding the offence itself. However, in this particular matter of Mr Hlebela, strong and convincing circumstantial evidence was presented that Mr Hlebela was probably guilty as charged.

CIRCUMSTANTIAL EVIDENCE

According to Swikkard and Others (2002) had this to say on circumstantial evidence, such as that presented before the arbitrator against Mr Hlebela:

“Circumstantial evidence often forms an important component of the information furnished to the court (or CCMA commissioner). In these instances the court (or CCMA commissioner) is required to draw inferences, because the witnesses have made no direct assertions with regards to the fact in issue. These inferences must comply with certain rules of logic.

Circumstantial evidence is not necessarily weaker than direct evidence. In some instances it may even be of more value than direct evidence ... In civil proceedings the inference sought to be drawn must also be consistent with the proved facts, but it need not be the only reasonable inference: it is sufficient if it is the most probable inference (see *S v Cooper* 1976 2 SA 732 (N) 734 and *MacLeod v Rens* 1997 3 SA 1039 (E))”.

In *S v Reddy* 1996 2 SACR 1 (A) at 8i, Zulman AJA quoted from ‘Best on Evidence’ (10 ed) paragraph 297 as follows:

“Even two articles of circumstantial evidence, though each taken by it weigh as much as a feather, join them together, you will find them pressing on the delinquent with the weight of a mill stone.”

This really appropriate quote from Zulman AJA was time after time in fact “being solidified” and “brought to life” right before the very eyes of the arbitrator.

The respondent’s representative would again and again direct Mr Hlebela to some of the expensive properties in exhibit 1, request some sort of an explanation, and the applicant would refuse to answer pleading his constitutional right to privacy as advised by CEPPWAWU or evade or not answer at all.

Eventually, as reflected above, the pressure of the cross-examination undoubtedly just got too much for Mr Hlebela who eventually conceded that he owned, amongst others, a construction company.

It needs to be reflected in this award that Mr Hlebela, on the advice of CEPPWAWU, as he certainly was constitutionally entitled to, insisted on having all questions put to him firstly in Tsonga and then, after carefully listening, he would respond in Tsonga.

According to Ngcamu (2006) reviewed and set aside an arbitration award where an arbitrator adopted an erroneous approach to circumstantial evidence.

The learned judge made it clear that once an employer established a *prima facie* case of misconduct (as in this case before the arbitrator) that the onus shifted to the employee to provide a credible explanation – which Mr Hlebela could not supply the arbitrator with.

BARE DENIAL

Mr Hlebela's case was essentially throughout this arbitration one of a bare denial – and occasionally hiding behind the SA Constitution, if even that.

Revelas (2011) commented on the implications of a "bare denial" as an applicant's "defence" in the unpublished matter as follows:

"[13] It does not lie in the mouth of a party who denies misconduct, to derive any benefit from the version which proves her denial to be false ...

[144] ... Unfortunately she chose to deny the incident. Sadly, it happens so often that misconduct is falsely denied, which only further compounds the breach of trust of the employer in the employee ..."

DERIVATIVE MISCONDUCT

In assessing the merits of the case before him, the arbitrator could come to no other conclusion than that the matter before him constituted a classic example of "derivative misconduct".

This particular form of misconduct was first suggested by the labour appeal court in *FAWU v Amalgamated Beverage Industries* (1994) 15 ILJ 1057 (LAC) and has, as the arbitrator stated above, at its very core and essence that the: "employee's silence justifies an inference that he participated or supported the particular misconduct that he had failed to disclose to his employer."

In Chauke (1998) the court with approval noted that "This approach involved a derived justification, stemming from an employee's failure to offer reasonable assistance in the detection of those actually responsible for the misconduct. Though the dismissal is designed to target the perpetrators of the original misconduct, the justification is wide enough to encompass those innocent of it, but who through their silence make themselves guilty of a derivative violation of trust and confidence."

In the case before the CCMA, Mr Hlebela did not give "reasonable assistance" to explain to Western Platinum, in fact, he gave "no assistance".

These prerequisites for derivative misconduct were clearly articulated by the arbitrator at [29] on p 8 of NUM and Others/RSA Geological Services, a division of De Beers Consolidated Mines Limited [2004] 1 BALR 1 (P) as:

"... first, that the employee knew or could have acquired knowledge of the wrongdoing; second, that the employee failed without justification to disclose that knowledge to the employer, or to take

reasonable steps to help the employer acquire that knowledge” (See also: ‘Employment Law’ February 2004 Vol. 20 Part 1 on pages 23 and 24).

The arbitrator accepted that the respondent, on a balance of probabilities, had proven these two “ingredients”.

The arbitrator made the following award:

- the dismissal of the applicant, Mr Arnold Hlebela, on the basis of him being guilty of derivative misconduct is upheld as procedurally and substantively fair;
- this frivolous and vexatious application is dismissed; and
- the CEPPWAWU trade union and the applicant, Mr Arnold Hlebela are ordered to equally (50% + 50%) pay the costs incurred by Western Platinum Refinery for the two days that this matter sat before the commissioner at the CCMA in Ekurhuleni. Such costs shall be computed at Schedule A of the Magistrate’s court Act, 32 of 1944 upon presentation of a Bill of Taxation by the respondent, Western Platinum Refinery as provided for in CCMA Rule 39(3).

COLLECTIVE GUILT

In principle, the courts require the same standards to be applied in cases of so-called group misconduct as do in cases of individual misconduct. However, specific problems arise when a number of employees who were involved in the same act of misconduct are subjected to disciplinary action (Grogan; 2001). Employers are sometimes faced with misconduct but no evidence to prove it as the witnesses refuse to come forward or to testify. The common law duty to act in good faith towards the employer flies out of the window and the employer is faced with the difficult decision as to whether it is going to start charging witnesses for failing to report misconduct or to come forward with information and evidence. These problems relate to the selection of employees to be disciplined, the situation that arises when there is no direct evidence against any or all of the individual employees, and the consistency or otherwise of the sanction applied.

Selection for discipline

In *SA Commercial Catering & Allied Workers Union & others v Irvin & Johnson Ltd* the Labour Appeal Court upheld the dismissals of employees who had taken part in a violent demonstration, even though other workers who had participated in the same offence had been acquitted by a different presiding officer because there was insufficient evidence of their involvement.

This suggests that employees who are guilty of misconduct cannot rely on the “party principle” to escape the consequences of their misconduct simply because their employer was unable to gather

evidence against other employees who were also involved in the same misconduct. The situation is different if the employees can prove that the employer was wilfully remiss in obtaining evidence against other guilty employees for ulterior reasons.

Collective misconduct

When a large or unknown number of employees have engaged in collective misconduct, and the actual perpetrators cannot be identified, the employer may be tempted either to select some employees for dismissal as an example to others, or to dismiss all employees who could conceivably have been involved, whether innocent or otherwise, in the hope that the guilty employees will be caught in the net. The first option is plainly unacceptable the dismissal of the selected employees is unfair unless there is evidence to link them to the commission of the offence. Such dismissals will be stigmatised as arbitrary. On the face of it, the second option is equally unacceptable, as it appears to offend against the principle, endorsed by all civilised legal systems, that it is preferable for a guilty party to go free, than to convict an innocent person.

One way out of this problem is for the employer to rely on the notion of “derivative misconduct”. In *Chauke* (1998) the court explained derivative misconduct as follows: “This approach involved a derived justification, stemming from an employee’s failure to offer reasonable assistance in the detection of those actually responsible for the misconduct. Though the dismissal is designed to target the perpetrators of the original misconduct, the justification is wide enough to encompass those innocent of it, but who through their silence make themselves guilty of a derivative violation of trust and confidence.” Although the principle in question causes problems in light of the principle of fairness in our law, Judge of Appeal Cameron formulated two lines of justification for a fair dismissal. First is where an employee who is part of a group of perpetrators is under duty to assist the employer in bringing the guilty to book. The second is where an employee has or may reasonably be supposed to have information concerning the guilty but fails or refuse to disclose same. His or her failure to come forward with the information may itself amount to misconduct as the relationship between employer and employee is in its essentials one of trust and confidence.

Although in both cases the courts’ observation were *obiter*, it seems, however clear that the judgments lay down the principle that, in appropriate circumstances, dismissals will be accepted as fair if the employees were aware of the identity of the perpetrators of serious misconduct, but declined to disclose this information to their employer after being requested to do so.

In *Foschini Group v Maldi & others* (2009) 18 LAC 1.25.2; [2010] 7 BLLR 689 (LAC) five employees (the full staff compliment in that store) were charged with “failure to secure assets of the company” after substantial stock losses were detected at the clothing store where they had been employed. The

employer could not prove that they were in fact stealing the stock, however they were dismissed in their absence for “Gross negligence by failing to take proper care of company property under their control resulting in a financial loss of R 207 000 as well as an irretrievable breakdown in the trust relationship. The company conducted a thorough investigation by sending a manager to the store in question, who conducted the investigation himself, which preceded and founded his report.

The Commissioner in the arbitration proceedings (and as confirmed by the LAC) looked at various cases where the question of collective misconduct or sanction was considered. According to Professor Grogan (2001) in *Snip Trading* the justification for the dismissal of each employee lies in his or her individual culpability for the failure of the group to attain the performance standard set by the employer. This justification is permissible if one accepts that an employer is entitled to introduce strict rules in order to protect its assets. It is often extremely difficult to prove that stock losses are caused by a particular employee. Consequently, it is acceptable for employers to introduce rules into the workplace and employment contracts which, if breached carry the sanction of dismissal, even for a first offence, and even if it is not a criminal offence. ‘Unauthorized possession’ and ‘failure to follow security procedures’ were examples given by Professor Grogan of such offences. These rules are reasonable, he reasoned because “rules are assessed not only in terms of fairness, but also in terms of operational requirements”. Consequently, it is acceptable for employers to introduce rules into the workplace and employment contracts which, if breached carry the sanction of dismissal, even for a first offence, and even if it is not a criminal offence. It should be noted therefore that the principle is not that some (the innocent) must suffer because the employer cannot pin point the guilty. In this case, Le Roux (2011) all are held responsible for not complying with the rule and not acting in good faith in executing their duties. It therefore lies in each employee’s individual culpability for the failure of the group to attain the performance standard set by the employer.

In *RSA Geological services v Grogan NO & others* the court revisited the concept of derivative misconduct in circumstances where the employer had established a *prima facie* that all employees in its employ had either been involved in misconduct or were aware of it, but could not identify the actual perpetrators. The court held that the onus was then on the employees to rebut the facts and inferences and that when they failed to do so it must find that all probably knew of the misconduct and participated in it, and that their dismissals were fair.

CONCLUSION

If employees possess information that would enable their employer to identify wrongdoer and those employees that fail to come forward when asked to do so, they violate the trust upon which the employment relationship is founded. The violation of that trust may justify dismissal in appropriate

circumstances. This breach of the employee's common law duty of good faith has acquired the label of "derivative Misconduct" (Wallis labour and employment law, 1992). In order to be successful in a case of derivative misconduct, the employer will have to convince the presiding officer that two elements are present.

First that the employee knew or could have acquired knowledge of the wrongdoing and second that the employee failed without justification to disclose that knowledge to the employer, or to take reasonable steps to help the employer acquire that knowledge as according to Employment Law (2004).

Finally the constitutional court in Sidumo (2008) confirm that the ultimate test that a commissioner must apply in a case is one of fairness. The commissioner's sense of fairness must prevail and not the employer's view. Therefore the commissioner will take into account the totality of circumstances. The commissioner must consider the reason the employer imposed the sanction of dismissal, as he or she must take into account the basis of the employee's challenge to the dismissal.

The approach involved a derived justification, stemming from an employee's failure to offer reasonable assistance in the detection of those actually responsible for the misconduct. The justification is wide enough to encompass also those innocent of it, and make themselves guilty of a derivative violation of trust and confidence. Justice must not only be done but it must be seen to be done. The failure to provide an explanation may be placed in the balance against the employee. It may be that policy considerations require more of an employee than the merely remain passive in circumstances and that this failure can assist in an investigation and may itself justify disciplinary action. Where the employees were present and through their silence make themselves guilty of a derivative violation of trust and confidence.

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LEGISLATION

Labour Relations Act 66 of 1995.

THE LOYALTY AND SATISFACTION DETERMINANTS: A FACTOR ANALYSIS APPLIED TO THE SOUTH AND INSULAR PORTUGUESE TRADITIONAL RETAIL

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ABSTRACT

The main purpose of this paper is to examine the determinants of customer satisfaction and loyalty and to analyse the links between customer satisfaction, image and customer loyalty, and service quality, in the South and Insular regions of Portugal, regarding traditional trade. A multi-level and hierarchical model is used as a framework to synthesize the impacts of customer satisfaction, service quality and corporate image on loyalty of customers in the traditional trade. Presently one of the vital challenges for managers in the retail industry is to provide and maintain customer satisfaction. Therefore, the ability to create a satisfactory experience for the consumer remains, to a considerable degree, a priority that is hold on the hands of both the management and the retail staff. It is essential for managers of traditional retail stores to have a good and clear understanding of exactly what the customers want and wish. The research results suggest that service quality is the main determinant of customer satisfaction and corporate image. Additionally, corporate image significantly influences customer satisfaction. Furthermore, customer satisfaction, corporate image and service quality significantly affect customer loyalty. This research contributes to the development of literature concerning retail management and provides some relevant insights for practitioners and retail managers in their quest for customer satisfaction and loyalty, therefore allowing to improve the sustainability and profitability of traditional trade, which has been increasingly under pressure from more modern retail models.

Keywords: Retail Service Quality, Customer Satisfaction, Corporate Image, Behavioural Intentions, Factor Analysis, Portugal.

INTRODUCTION

Nowadays we are witnessing an increasing competition in the markets and in the companies, namely in the retail industry. One of the most recommended marketing strategies to gain competitive advantage is the customer satisfaction, considering that the key to success lies in building relationship with customers as customer loyalty and retention is related to retail industry profitability. Knowing the relevance of customer satisfaction and loyalty in profitability, retail industry make every to keep customers satisfied and loyal. Additionally to traditional marketing strategies for example advertising, rewards and promotions, personal communications, delivering quality service and enticing customers to link numerous loyalty programs are popular approaches to sustaining such relationship (Prentice, 2013). Service quality and customer satisfaction are regularly considered as determinants of customer loyalty (Disfani et al., 2017; Durvasula & Lysonski, 2010; Khare, Parveen & Rai, 2010; Martinelli & Balboni, 2012; Tang et al., 2015; Yu & Ramanathan, 2012; Yuen & Chan, 2010).

Several studies have examined the relationship between perceived service quality and customer satisfaction, confirming that service quality is an important antecedent of satisfaction. In this regard, Dabholkar, et al. (2000) argue that traditionally, most researchers conclude that customer satisfaction resulting from a particular experience of consumption, leads to an evaluation about the quality of service over a period of time. Although the quality of service in the retail industry has been extensively researched internationally (e.g., Al Khattab & Aldehayyat, 2012; Zaibaf, et al., 2013) there has been little research done in Portugal to examine service quality as an antecedent of satisfaction and behavioural intention of customers in the Portuguese traditional trade. The choice of this topic is due to the need for traditional retailers to properly understand whether the service meets customer perceptions in the different dimensions of SERVQUAL, contribute to their satisfaction and customer loyalty (intention to return and recommend services), since they are determinant variables in maximizing profit, market share, and return on investment.

Given the research void, following seminal research such as from Veloso et al. (2017), the current study examines the relationships among retail service quality, customer satisfaction and loyalty. The central aim of this paper is to propose and apply a multi-level model that allows for the examination of the determinants and consequences of customer satisfaction, in traditional trade in South and in the Islands of Portugal. We specifically intend to present a conceptual model is used as a framework to identify the dimensions of service quality and examining the interrelationships among customer satisfaction, corporate image and customer loyalty and service quality in the traditional retail industry. In this paper, after this present introduction, a review of the main literature on corporate image, customer satisfaction and their customer loyalty is made, then we propose the conceptual model and research hypotheses, after presented the findings and discussion, ending with the presentation of the discussion

and the conclusion of the research. This study is particularly important for retail managers (survival and growth of retail companies), politicians (wealth creation, economic growth, etc.) and for the development of the literature in the Portuguese traditional retail industry.

SERVICE QUALITY

Early studies on service quality defined it as a measure to which a service provides customer needs, and implicates a comparison of customer expectations with their perceptions of actual service performance (Parasuraman, et al., 1985; Parasuraman, et al., 1988). Recent studies described the perceived service quality as an overall judgment about the level of a service provider's performance (Zeithaml, Bitner & Gremler, 2006). Service quality has assumed a major role both in public and private institutions, as an indispensable requirement to customer satisfaction. Lang (2011) finds the quality service as an important determinant of customer satisfaction and word-of-mouth communication. Regarding service quality dimensions, in according to Parasuraman et al. (1985, 1988) there are five dimensions of quality service: tangibility (physical facilities, equipment, and appearance of personnel); reliability (ability to perform the promised service dependably and accurately); responsiveness (willingness to help customers and provide prompt service); assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence); and empathy (caring and individualized attention the firm provides to its customers). These authors, who represent the American school, have designed an instrument for measuring quality of service, called SERVQUAL. Thereby, the SERVQUAL constitute a quality system that will potentially improve functional quality and service performance (Meesala & Paul, 2018). SERVQUAL model has been criticized and discussed extensively. For instance, Cronin and Taylor (1992) observed that the validity of the use of expectations in the SERVQUAL model was called into question when consumers had no well- formed expectations and developed the SERVPERF scale which consists of the same 22 "items" of SERVQUAL, although centred only in measuring consumer perceptions regarding the quality of service.

Despite the diversity of studies in many fields, in this study, SERVPERF will be applied to the traditional trade in the Centre of Portugal in a similar manner as that of other studies realized at an international level, in the area of the trade industry (Abd-El-Salam, Shawky & El-Nahas, 2013; Disfani et al., 2017; Durvasula & Lysonski, 2010; Khare, Parveen & Rai, 2010; Martinelli & Balboni, 2012; Tang et al., 2015; Yu & Ramanathan, 2012; Yuen & Chan, 2010). Generally, if service companies take actions that improve these quality dimensions, they will earn the benefits of customer loyalty (Bansal & Taylor, 1999; Zeithaml, Berry & Parasuraman, 1996). According to Nadiri and Hussain (2005) service quality increases customer satisfaction, stimulates intention to return, and inspires recommendations. In line

with this studies, and based on SERVQUAL and SERVPERF, the following hypotheses are proposed in the present study:

- H₁:** The perceived service quality by customers can be seen as a multidimensional construct.
- H₂:** The perceived service quality by the customers has a positive influence on their satisfaction.
- H₃:** The perceived service quality by the customers has a positive influence on corporate image.
- H₄:** Perceived service quality has positive relationship with customer loyalty.

CUSTOMER SATISFACTION

In the services industry, the customer satisfaction is the outcome of the customer's perception of the value received in a transaction or relationships, where value equals perceived service quality, compared to the value expected from transactions or relationships with competing vendors (Zeithaml, Parasuraman & Berry, 1990). Satisfaction is also considered as a consequence of the customer's post-buy evaluations of both tangible and intangible brand attributes and a key determinant of customer loyalty (Krystallis & Chrysochou, 2014). More value for customer incomes great satisfaction, which can benefit the retail enterprise in the long term (Cronin, Brady & Hult, 2000) and generate higher profits. Customer satisfaction is found to be dependent on the quality of service presented to the customer and is one of the instruments to enhanced value for customers. The major challenges for service industry are service quality and customer satisfaction. According to Gundersen, Heide and Olsson (1996) the central point of customer satisfaction is to identify the crucial attributes, considered by customers as their needs and expectations. The key to customer satisfaction lies in identifying and anticipating customer needs and especially in being able to satisfy them. For Dominici and Guzzo (2010) enterprises which are able to rapidly understand and to satisfy customers' needs, make greater profits than those which fail to understand and satisfy them. Additionally, Sirdeshmukh, et al. (2002), reported that customers' satisfaction has close relationship to brand loyalty as well as service quality. Analogous claim is presented by Hoq and Amin (2010), who postulated that customer satisfaction is the emotional tendency of a customer towards repurchase of products and services offered by a retail store. In order to be successful, especially in the retail industry, managers must concentrate on retaining existing customers by implementing effective strategies towards customer satisfaction and loyalty, since the cost of attracting new customers is higher than the cost of retaining existing ones (Yuen & Chan, 2010). Based on these findings, it is proposed that:

- H₅:** Customer satisfaction positively influences intention to return.
- H₆:** Customer satisfaction positively influences word of mouth recommendations.
- H₇:** Customer satisfaction positively influences on customer loyalty to the staff.

CORPORATE IMAGE

Several researchers of the area of marketing have widely studied the concept of brand image (Abd-El-Salam et al., 2013; Kim & Kim, 2005; Kim & Lee, 2010; Sahin & Baloglu, 2011; Yu & Ramanathan, 2012). For Kim and Kim (2005) a brand symbolizes the essence of the customers' perceptions of the organizations. Corporate image is defined as the "general impression" left in the customers' mind as a result of accumulative impressions or feelings, attitudes, ideas and experiences with the firm, saved in memory, transformed into a positive/negative sense, retrieved to rebuilding image and recalled when the name of the firm is heard or brought to ones' mind. According to Sahin and Baloglu (2011) corporate image is defined as the perception of customers about a brand or a product labelled with that brand. Different authors consider brand image as an important component of strong brands and a determinant in the obtainment of competitive advantages.

An overall assumption is that a promising corporate image will have a positive impact on consumers' behaviour towards the brand, such as the opportunity to command premium prices, buyers who are more loyal, and more positive word-of-mouth reputation (Martenson, 2007). Some researchers developed in last years, have tested the effect of corporate image on customer satisfaction and loyalty (Kim & Lee, 2010; Yu & Ramanathan, 2012). Their empirical findings showed that corporate image plays the important role in founding and retaining customer loyalty in the markets. Additionally, these authors found that customer satisfaction and corporate image perceptions positively influence service loyalty, with satisfaction having a greater influence on loyalty than image. Thus, corporate image is believed to create a positive effect on customers' satisfaction. When customers are satisfied with the service provided of company, their attitude toward the company is enhanced (Srivastava & Sharma, 2013). Based on the reported research, it is proposed:

H₈: Corporate image has positive relationship with customer satisfaction.

H₉: Corporate image has positive relationship with customer loyalty.

Customer Loyalty

Customer loyalty has been usually defined as occurring when customers repetitively buying goods or services over time and retain positive attitudes towards the enterprise delivering the goods or services (Yuen & Chan, 2010). Customers frequently develop an attitude toward purchasing based on a prior service experience or, still, this attitude can also be influenced by previous information, based on the image of the retail in the market and even by word of mouth (WOM recommendation). With reference to the previous conception, customer loyalty has been usually defined as a combination of attitudes and behaviour that becomes a profoundly held commitment to repurchase or support a preferred product/service consistently in the future (Oliver, 1999). The literature suggests behavioural intentions as a construct which permits the evaluation of customer loyalty. These are behaviours related to the

intention to repurchase and even to the intention of recommending the product/service (Sumaedi & Yarmen, 2012; Yuen & Chan, 2010; Zeithaml, et al., 1990). Some studies developed in service industry have found the positive relationship between perceived service quality and loyalty (Wong, Dean & White, 1999). In this sense, behavioural intentions can be define as the customer's judgment about the likeliness to repurchase in this firm or the willingness to recommend the firm to others. We conceptualize behavioural intentions as a higher-order construct consisting of (1) positive word of mouth (Boulding, Kalra, Staelin & Zaithaml, 1993), (2) willingness to recommend (Parasuraman, Zeithaml & Berry, 1994), and (3) intentions to continue buying from a particular service provider (Bowen & Shoemaker, 1998). Based on previous definition, behavioural intention in this study may be described as a stated likelihood to repurchase in the retail stores in the Centre of Portugal and to recommend the traditional store to family, friends and others in the future. There is also ample evidence of the influence of service quality on behavioural intentions, a huge body of research has demonstrated the significant relationship between service quality and customers' behavioural intentions (Parasuraman, Zeithaml & Malhorta, 2005; Sousa & Voss, 2010). In a multi-industry study, the authors later provided evidence of the significant effect of perceived service quality on customers' favourable behavioural intentions, such as repurchase, tendency to say positive things and recommend the company. In addition Cronin and Taylor (1992), Zeithaml et al., (1996) and Fullerton (2005), find a favourable association between service quality and repurchase intentions, say positive things, and willingness to recommend. Therefore, we expect customers who perceive the quality of the service as high to be more likely to demonstrate loyalty intentions. The positive perceptions of service quality enhance the possibility of customers being dedicated in supporting the company and developing and strengthening loyalty behaviour (Yuen & Chan, 2010). The customer loyalty is perceived like as behavioural intention and several scholars consent it is a construct of three levels, namely person-to-person loyalty and person-to-firm loyalty (intention return) and recommendation (WOM). Yuen & Chan (2010) approved the relationship between salesperson loyalty and firm loyalty and they confirmed that the former will carry the latter. Moreover, Oh (1999) found a positive and significant relationship between intention to return and WOM recommendations. Based on these findings, it is proposed that:

H₁₀: Intention to return positively influences WOM recommendations.

H₁₁: Staff Loyalty positively influences Intention to return.

According to this theoretical background, the objective of this study is to propose a model that consists of evaluating the impact of, as Figure 1 shows: (1) perceived service quality directly contribute to customer satisfaction, corporate image and customer loyalty; (2) corporate image and

customer satisfaction directly contribute to customer satisfaction; (3) corporate image directly contribute to customer satisfaction; (4) customer satisfaction directly influences the intention to return, the loyalty to staff and WOM recommendation (Word-of-Mouth communication intention) and (5) the loyalty to staff has a direct influence on the intention to return and this has a direct impact on WOM recommendation.

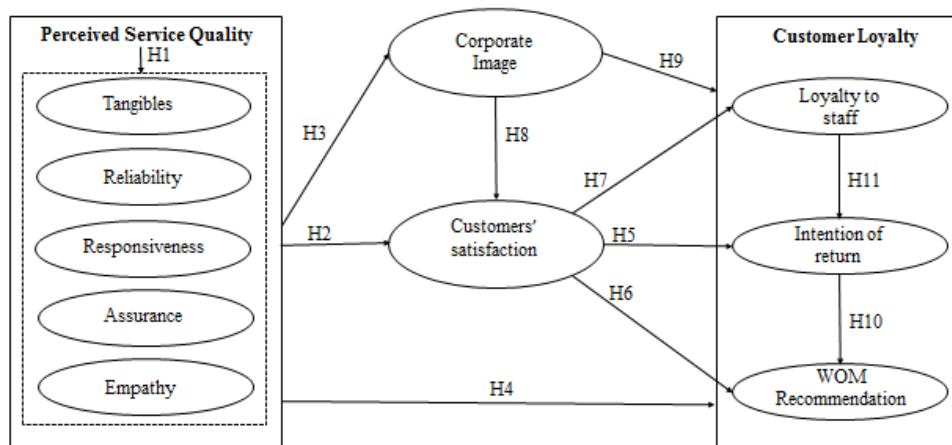


Figure 1. *Research model.*

METHODOLOGY AND DATA

A questionnaire was designed as the survey instrument, which were included all the constructs of the proposed model. The questions in the questionnaire were based on a review of the literature in the area of the trade industry, described above in the theoretical background. This study was applied to customers from traditional retail stores in the north of Portugal during the second half of 2017. It was used a non-probabilistic sampling using convenience technique. This can be regarded as the possible main limitation of the research, as if it would have been conducted by random sampling method, the study would perhaps acquire a greater meaning and general importance.

The questionnaires were distributed online, in order to facilitate a quick distribution and collection of questionnaires in all cities in South and Island of Portugal, and the answers came from the several places of the South and Islands of Portugal. In this study, respondents were required to fill out a three sections. The first section consisted of a standard demographic profile of respondents. The second section contained the characterization of purchase process. The last section includes the statements of dimensions and their sub dimensions. The measurement items to measure primary and sub-dimensions of service quality were adapted from several researchers (Cronin & Taylor, 1992; Dabholkar, et al., 1996; Wu, et al., 2011) and a series of items focusing on the behavioural intentions, customer satisfaction, corporate image and service quality, which were adapted on the basis of several researchers' results (Wu, 2013; Yuen & Chan, 2010; Yu & Ramanathan, 2012; Zeithaml, et al., 1996).

Respondents were asked to use a five-point Likert-type scale (between 1 = 'strongly disagree' and 5 = 'strongly agree') to record their perceptions. Construct reliability was assessed by using the Cronbach's alpha coefficient. Reliabilities ranged from 0.854 to 0.951, suggesting that the construct could be used with confidence.

For the descriptive analysis it was used absolute and relative frequency tables. The Spearman correlation coefficient it was used to measure the intensity of the linear correlation between variables. Multiple linear regression was used in order to estimate models that could identify the determinants of the behaviour of the variables under analysis. The significance level of 5% was assumed in all analysis.

MODEL RESULTS

Demographic Profile

The sample of the South and Insular of Portugal was composed of total 223 respondents which 54.3% (121) were females and 45.7% (97) were males. The maximum number of responses was obtained from 35 - 44 years old with 43.5% (97) and the second age group from 25 - 34 years, with 25.1% (56) responses. Most respondents 61.9% (138), were married or in an unmarried partner, 30.5% (68) were single. It is verified most of respondents had higher education qualifications, as 37.7% (84) were graduates; 29.6% (66) had finished secondary school; 9% (20) had postgraduate degrees; 9.9% (22) had a master's degree and 4.5% (10) were PhDs. As for the professional occupation mostly, 81.2% (181) were employed. In the activity sector, business stood out with 32.3% (72) and the banking with 24.7% (55) of the respondents. Regarding the average annual income, it is observed that 31.4% (70) of the respondents earned between 7001€ to 20000€; 16.6% (36) earned between 20001€ to 40000€ and 7.2% (16) received annually between 40001€ to 80000€ and 34,1%(76) had average annual income higher than 80000€.

Purchase Process

The obtained results show that all of the respondents purchases in traditional trade. It was verified that 91.9% (205) of the individuals had made purchases in traditional commerce there is more than 12 months. The most popular frequency of purchases registered was monthly, 37.2% (83) of the respondents go to the traditional trade once a month and 34.1% (76) do it weekly. As for the average annual spending on purchases in the traditional retail, it was found that 34.1% (76) of the respondents spend under 100€ and that 32.3% spend more than 400€ annually.

Correlation and regression analyses

Analysing the Table 1 shows that the sub-dimensions that constitute Service Quality (SQ) present strong and direct correlations with the SQ, namely assurance and empathy sub-dimensions with very strong correlation coefficients. These findings corroborate hypothesis 1.

Dimensions	Service Quality
Tangibles	0,828
Reliability	0,882
Assurance	0,919
Responsiveness	0,878
Empathy	0,907

Table 1. *Spearman correlation between SQ and its constituent dimensions.*

The Table 2 shows that the dimensions that constitute Customer Loyalty present strong and direct correlations with the same, namely the dimensions: WOM and intention to return. The staff loyal contributes least to the behavioural intentions.

Dimensions	Behavioural Intentions
WOM	0,902
Intention to Return	0,960
Loyalty to Staff	0,645

Table 2. *Spearman's correlation between Behavioural Intentions and its constituent dimensions.*

In the Table 3 it is verified that all scale dimensions have positive statistically significant correlation coefficients. The correlation between Service Quality and Customer Satisfaction is strong; as well as between customer loyalty and service quality and customer satisfaction. However, the correlations of the corporate image dimension with the other dimensions were of moderate intensity.

	Service Quality	Customer Satisfaction	Customer Loyalty	Corporate Image
Service Quality	1	0,788	0,697	0,603
Customer Satisfaction		1	0,733	0,511
Customer Loyalty			1	0,552
Corporate Image				1

Table 3. *Spearman correlation between dimensions of scale.*

Ordinary least squares regression was used to analyse each path in the conceptual model. Statistical assumption tests were assessed for each of the six regression models prior to the analysis in order to ensure a robust result. The results of the hypotheses tests are presented in Table 4. The application of the multiple linear regression model allowed us to obtain a parsimonious model that makes it possible to predict the dependent variable from a set of regressors (independent variables).

Dependent variable	Independent variables	Adjusted R2	F value (p value)	Standardized coefficients	t value (p value)
Customer Satisfaction	Constant	0,627	187,892 (0,000)	-0,027	-0,137(0,891)
	Service Quality			0,691***	13,546(0,000)
	Image			0,156**	3,061(0,002)
WOM	Constant	0,744	162,489 (0,000)	0,157	0,887(0,376)
	Customer Satisfaction			0,225***	3,930(0,000)
	Service Quality			0,053	0,864(0,388)

	Image			0,096*	2,153(0,032)
	Intention to Return			0,600***	12,010(0,000)
Intention to Return	Constant			0,156	0,640(0,523)
	Customer Satisfaction			0,424***	5,866(0,000)
	Service Quality	0,593	81,970 (0,000)	0,061	0,838(0,403)
	Loyalty to staff			0,280***	5,847(0,000)
	Image			0,195***	3,566(0,000)
Loyalty to Staff	Constant			0,042	0,093(0,926)
	Customer Satisfaction			0,094	0,923(0,357)
	Service Quality	0,296	24,280 (0,000)	-0,010	-0,101(0,919)
	Image			0,011	0,146(0,884)
	Intention to Return			0,485***	5,847(0,000)
Customer Loyalty	Constant			0,218	1,011(0,313)
	Customer Satisfaction			0,487***	7,006(0,000)
	Service Quality	0,604	114,073 (0,000)	0,153*	2,150(0,033)
	Image			0,239***	4,450(0,000)
Image	Constant			0,836**	3,308(0,001)
	Customer Satisfaction	0,376	67,863 (0,000)	0,262**	3,061(0,002)
	Service Quality			0,391***	4,574(0,000)

Table 4. *A summary of regression models.*

In the first regression model which tests the influence of service quality and corporate image on the variation of customer satisfaction. The model obtained is at a statistically significant level of significance of 1% ($F = 187,892$; $p\text{-value} = 0,000$), that is, the variation of customer satisfaction is explained significantly by the estimated model. By the application of the test t , we conclude that service quality ($\beta = 0,691$; $p\text{-value} < 0,001$) and corporate image ($\beta = 0,156$; $p\text{-value} < 0,01$) determine significantly the behaviour of customer satisfaction. The adjusted coefficient of determination reveals that the model presented explains, on average, about 62,7% of the variation of customer satisfaction. Consequently, this model supports the second and the octave hypothesis.

The second regression model that relates WOM with the regressors: customer satisfaction, service quality, corporate image and intention to return is at a significance level of 1% statistically significant. The determinants of the model influenced significantly the variation of WOM, by application of the test t we achieve that customer satisfaction ($\beta = 0,225$; $p\text{-values} < 0,001$); intention to return with coefficient $\beta = 0,600$ and $p\text{-value} < 0,001$; corporate image with coefficient $\beta = 0,096$ and $p\text{-value} < 0,05$; are statistically significant. The estimated model explains, on average, about 74,4% of the WOM variation. Thus, this model supports the tenth and the sixth hypothesis.

In the third regression model that relates intention to return with the regressors: customer satisfaction, service quality and corporate image is at a significance level of 1% statistically significant. The followings determinants of the model influenced significantly the variation of intention to return, as the test t , customer satisfaction with coefficient $\beta = 0,424$ and $p\text{-value} < 0,001$; loyalty to staff ($\beta = 0,280$; $p\text{-value} < 0,001$) and corporate image with coefficient $\beta = 0,268$ and $p\text{-value} < 0,001$; are statistically significant. The estimated model explains, on average, about 59,3% of the intention to return. The

service quality regressor is not presented significantly in the variation of intention to return. Thus, this model supports the fifth and the eleventh hypothesis.

The fourth regression model that relates loyalty to staff with the regressors: customer satisfaction, service quality, corporate image and intention to return is at a significance level of 1% statistically significant. The estimated model explains, on average, about 29,6% of the loyalty to staff. The intention to return was influenced significantly the variation of loyalty to staff, as the test t, with coefficient $\beta = 0,485$ and p-value $<0,001$; is statistically significant. The customer satisfaction, the service quality and the corporate image regressors are not presented significantly in the variation of loyalty to staff. Thus, this model refutes the seventh hypothesis.

The fifth regression model that relates customer loyalty with the regressors: customer satisfaction, service quality and corporate image is at a significance level of 1% statistically significant. The determinants of the model influence significantly the variation of customer loyalty, because by the test t customer satisfaction with coefficient $\beta = 0,487$ and p-value $<0,001$; service quality with coefficient $\beta = 0,153$ and p-value $<0,05$; corporate image with coefficient $\beta = 0,239$ and p-value $<0,001$; are statistically significant. The estimated model explains, on average, about 60,4% of the customer loyalty variation. Therefore, this model supports the fourth and ninth hypothesis.

The sixth regression model that relates corporate image to the service quality and to the customer satisfaction, is at a significance level of 1% statistically significant. The estimated model explains, on average, about 37,6% of the corporate image variation. By the application of the test t, the customer satisfaction with coefficient $\beta = 0,262$ and p-value $<0,01$ and service quality regressor ($\beta=0,391$; p value $<0,001$), can be conclude that, determine significantly corporate image behaviour. Therefore, this model supports the third hypothesis.

CONCLUSIONS

This research achieved their central aim since it has examined the determinants of the customer satisfaction and loyalty and has evaluated the relationships among customer satisfaction, image and customer loyalty and service quality, in the traditional trade of South and of the Islands of the Portugal. So, the model proposed was allowed to evaluate the hypotheses presented, as well as it contributes to the retail managers better understand the implications of the dimensions of service quality, customer satisfaction and of brand image on customer loyalty, and the consequently on the profitability of the traditional retail stores. The findings from exploratory factor analysis indicate that service quality consists of five dimensions (tangibles, reliability, responsiveness, assurance and empathy). For traditional trade in the South and in the Islands of Portugal, the assurance and the empathy play an

important role in determining service quality, and are followed by responsiveness, reliability and tangibles.

The results of this study validated the hypotheses of investigation with the exception of the seventh hypothesis. In this sense, this research demonstrates that service quality has a direct influence on corporate image, and both, influence customer loyalty. The positive relationship between service quality and corporate image suggests that customers who received high service quality during service delivery would form a favourable image of the traditional retail store. Furthermore, the relationship between customer satisfaction and corporate image is positive and significant. Increased service quality then results in greater corporate image that results indirectly in greater customer loyalty, based on the positive relationship between corporate image, customer satisfaction and customer loyalty. Both customer satisfaction as corporate image directly influences customer loyalty. In general, satisfied customers form their favourable behavioural intentions to return or recommend the traditional retail store while experiencing a high level of service quality that produces a favourable corporate image. Furthermore, the level of satisfaction of the customers positively affects their word of communication about traditional stores retail of the South and of the Islands of Portugal and the customers' intentions to revisit a retail store. Nevertheless, customer satisfaction does not directly influence loyalty to staff. Findings found are also consistent with the literature. In other researches such as this, satisfied customers have higher levels of intention for revisiting traditional stores, loyal customer to staff has intention to revisit the traditional retail store and their satisfaction levels induce them to provide positive word of mouth communication to friends or families. Corporate image has been found to have a positive effect on behavioural intentions, implying that customers forming their positive overall impressions of the image of traditional store retail are more likely to return or revisit the similar store in the future.

Besides, the findings of this research supported the corporate image, customer satisfaction and of the dimensions of service quality as determinants of the customer loyalty in the traditional retail of the South and of the Islands of Portugal. Their retail managers can use this finds to improve their understanding of the factors that create a pleasant purchasing experience and act to increase customers' loyalty. Furthermore, the customers who return or revisit the traditional retail stores can help management to establish a good reputation through the positive word-of-mouth. In addition, retail management should know and resource the customer-important sub-dimensions to improve traditional trade' competitiveness. This information will enable management to accurately measure customers' perceptions of their overall experiences in the traditional trade. Additionally, the traditional retail stores should continue their emphasis on service and making a more personalized experience for their customers. Great service has the potential to considerably development perceived utility for

customers (Disfani et al., 2017). Therefore, management should realize that service quality in the trade industry definitely influences customers' future favourable behavioural intentions through satisfaction and corporate image. Also, traditional trade management should structure their infrastructure, processes, operations and resource allocation in terms of the relative importance of the service quality dimensions to their target at specific customers. Traditional retail industry need to recognize the importance of service quality dimensions in order of their significance, and implement appropriate strategy for competitive advantage over domestic and international players competing for share of an expanding consumer base (Mahfooz, 2014).

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AN EXAMINATION OF EXPORTS FROM PANAMA TOWARDS EUROPEAN UNION COUNTRIES USING DYNAMIC SHIFT-SHARE ANALYSIS

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ABSTRACT

The main purpose of this paper is to analyze Panama's decomposed exports to the EU countries. To achieve this objective, a dynamic Shift-Share analysis methodology was applied to the most recent Panama-European Union trade data available on the Statistical Office of the European Communities (Eurostat) in the period between 2013 and 2016. Supported on the analysis conducted, it was possible to observe that the most relevant EU destination countries, which represent 94.19% of Panama's exports are: Germany, Belgium, Cyprus, Denmark, Spain, Greece, Netherlands, Italy, Poland, the United Kingdom and Sweden. However, the exports from Panama to the European Union experienced an overall decrease of 3.18%, despite of the entry into force of the Association Agreement between Central America and the European Union (AACUE). According to the Shift-Share analysis, Panama's exports to the European Union were affected by the decreases in exports to countries such as: Germany, Belgium, Greece, Italy, Poland, United Kingdom and Sweden. Furthermore, one could observe a decrease in the exports of the following products: other vegetables, fresh or frozen, fresh fruit; oil seed and oleaginous fruit and fats and other products; and transport equipment.

Keywords: International Trade, Panama, European Union, Dynamic Shift-Share analysis, AACUE.

INTRODUCTION

It is arguably recognized that international trade may be beneficial, because it allows countries to export goods and services whose production is abundant thanks to the resources they have; while, it imports those goods and services whose production is relatively low due to scarce resources

(Krugman & Obstfeld, 2006). A phenomenon that accompanies international trade is economic integration, which reduces or eliminates trade barriers to enhance trade.

The Association Agreement between Central America and the European Union (AACUE) that was signed on June 29, 2012 by the 28 countries that make up the European Union and Costa Rica, Panama, Honduras, Guatemala and El Salvador. And that does not only cover trade issues, but also of cooperation and political dialogue; it is an example of what economic integration has been about. In Panama, the commercial pillar of this Agreement entered into force as of August 2013 and in this sense, Panama has the same conditions of access to the EU market as the countries that have a Free Trade Agreement with this economic bloc, due to that eliminates a number of tariffs to the main products that Panama exports. It is important to mention that, before the validity of the commercial pillar of the AACUE, Panama belonged to the Generalized System of Preference (GSP +) that allowed many products not to pay tariffs when they entered the EU (EEAS, 2016).

In the present research work, Panama's exports to the European Union market will be characterized, so the objective of this study is, in a first phase, to identify the main destination countries of Panama's exports, as well as the main products exported to the EU. And in a second phase, characterize and find explanatory factors of the behavior of exports from Panama to the EU. In order to achieve the proposed objective, the dynamic Shift-Share analysis methodology will be applied to the most recent data on Panama-EU trade available in the *Statistical Office of the European Communities (Eurostat)*, in the corresponding period between 2013 and 2016.

In this paper, after the introduction, a review of the literature is made, followed by the presentation of the proposed methodology to be applied, and then the findings of the analysis are presented, being finalized with the presentation of the discussion and the conclusions of the investigation. Following an early research conducted by Mejia et al. (2018), this research aims to contribute to the development of the literature regarding international trade in Panama, by the means of a contribution to existing statistics on exports from Panama to the European Union, which can be particularly relevant to politicians, as it relates to important issues such as wealth creation and economic growth, which can therefore be used as a tool for delineating corporate and national strategies to enhance trade between Panama and the EU.

International Trade Agreements between Panama and the European Union

According to the context of events that marked the trade relations between Panama and the EU, the most important were: the incorporation of Panama to Subsystem of Central American Economic Integration (SIECA) of the Central American Integration System (SICA) and the signing of the Association Agreement between the European Union and Central America (AACUE).

It should be noted that before the signing of the AACUE, Panama belonged to the Generalized System of Preferences (GSP) of the European Union, which was established in 1971 under the recommendations of the United Nations Conference on Trade and Development (UNCTAD) with the objective of promoting the economic growth of the developing countries.

The GSP allows beneficiary countries access to reduced tariffs or the total exoneration of tariffs for manufactured and semi-manufactured products exported to the European Union (Cuyvers & Soeng, 2012). For this the EU provides three schemes of commercial benefits: GSP standard, GSP+, EBA (Everything but Arms); where each of the beneficiary countries are located according to their needs. For example, Panama was located in the GSP+ scheme; which eliminates all tariffs in more than 66% of EU tariff lines (EC, 2017).

The Association Agreement between the European Union and Central America is a broad inter-regional instrument that not only involved trade issues, but went further on issues of cooperation and political dialogue. The negotiations of this agreement ended on May 19, 2010 at the VI Summit of the European Union and Latin America and the Caribbean, which took place in Madrid, after 7 rounds of negotiations that began in 2007 and two technical meetings. However, the parties involved signed the Agreement on June 29, 2012 at a meeting of the Presidents of SICA in Tegucigalpa, Honduras.

The Association Agreement has 8 general objectives encompassed in the first and the last one, which are: strengthen and consolidate relations between the Parties through an association based on three interdependent and fundamental parts: political dialogue, cooperation and trade, based on mutual respect, reciprocity and common interest; and encourage the increase of trade and investment between the parties, taking into consideration Special and Differential Treatment to reduce the structural asymmetries existing between the regions. The Association Agreement establishes the Association Council as an institution that supervises the fulfilment of the objectives and their application, which is formed by the representatives of the EU and representatives of each CA country; which has the power to create any subcommittee it deems necessary to fulfil its functions. It also establishes a Parliamentary association committee and a Joint Consultative Committee as an institutional framework (EEAS, 2017). As mentioned above, Political Dialogue, Cooperation and Trade are interdependent parties that constitute the fundamental pillars of the Agreement between the EU and CA.

DYNAMIC SHIFT-SHARE ANALYSIS

Shift-Share Analysis Model

As referred earlier in Mejia et al. (2018), the Shift-Share Analysis was originally developed in 1942 by Daniel Creamer in his work "Shifts of manufacturing industries" (Cited in Houston, 1967). However, several other authors (Artige and Neuss, 2013; Otsuka, 2017; Fernandes, 2015; Cerejeira, 2011) maintain

that the Shift-Share Analysis was developed, applied and formally introduced in 1960 by Edgar S. Dunn in his work "A statistical and analytical technique for regional analysis".

This Shift-Share analysis is a descriptive statistical tool used for the analysis of economic, regional, sector, political variables, among others; that decomposes the growth or total decline of the variable in terms of national, industrial and competitive exchange effects (Matlaba, Holmes, McCann, & Poot, 2014). It responds mainly to the following question: What factors explain the X percent of the growth or decline (behaviour) of an economic variable?

It should be noted that the first investigations in which the Shift-Share analysis was applied were aimed at analyzing employment issues. However, over time the technique has been used to analyze tourism issues (Shi and Yang, 2008, Firgo and Fritz, 2016, Dogru and Sirakaya-Turk, 2017); electrical energy (Otsuka, 2017; Grossi and Mussini, 2018); International Trade (Markusen, Noponen and Driessen, 1991, Dinc and Haynes, 2005, Chiang, 2012); predictive purposes (Mayor, López, & Pérez, 2005); as well as topics on agriculture, industry, specialization and competitiveness, human development index (Fernandes, 2015), regional economy, planning, economic policies, transport (Ruiz, Peña and Jiménez, 2015), among others. The success and widespread use of Shift-Share analysis is essentially due to the fact that in the first place the data required for its application are easily accessible, simple, fast and reasonable (Stevens and Moore, 1980). Second, it has low costs, is logical, analytical and easy to interpret (Chiang, 2012).

The Shift-Share analysis can be represented by a graph where the axis of the abscissas represents the structural component and the one of the ordinates represents the regional component, allowing the regions under study to be classified according to the values obtained from the decomposition of their growth.

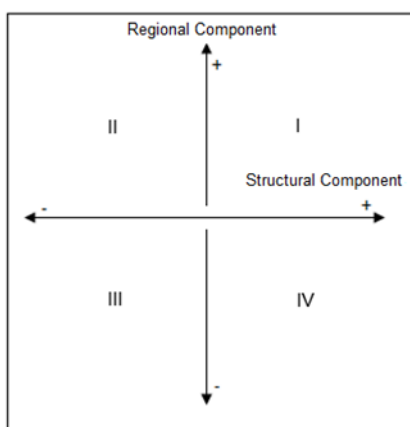


Figure 1. *Graph of analysis of the Shift-Share methodology*

The first quadrant (I) represents the most favourable situation: the regional effect and the competitive effect present positive values. The second quadrant (II) represents an intermediate situation: the

regional effect is positive (local advantages above the average) and the competitive effect is negative (unfavourable productive specialization). The third quadrant (III) represents the most unfavourable situation: both effects are negative which means that the region is not specialized and its growth is below the national average. Finally, the fourth quadrant (IV) also represents an intermediate situation contrary to that of the second quadrant: the regional effect is negative and the competitive effect is positive (Cerejeira, 2011).

Dynamic Shift-Share Analysis Model

The dynamic Shift-Share analysis is supported by the literature on the work done by Barff and Knight (1988) "Dynamic Shift-Share Analysis" in which they state that, the static Shift-Share analysis only considers the initial and final conditions of a period of time, which creates problems (for example: continuous changes), which can be eliminated by calculating the effects of the analysis annually. That is, the dynamic analysis continuously updates the variations or fluctuations (growth or decline) of the national, structural and regional components and therefore the total growth of a period of time dividing these into sub periods. Its use is important when the study period is extensive and is characterized by large variations between regional and national growth, and large changes between the sectoral and regional component.

The dynamic model uses the general formula of the Shift-Share analysis on an annual basis for the period of years under study in order to obtain a better analysis.

The adapted general formula can be presented as:

$$\sum_k \Delta X_{ik} = \sum_k (X_{ik}^t - X_{ik}^{t-1}) = \sum_k (NX_{ik} + SX_{ik} + RX_{ik}) \quad (1)$$

Where:

ΔX_{ik} : represents the variation observed in the variable X_{ik} .

X_{ik}^t : represents the economic variable X measures in the region i , in the sector k , and in the moment t .

NX_{ik} : represents the national component (how much should Panama's exports grow if the growth rate were equal to that of the national economy. It is to be expected that it is not the same since the structural and regional components are different for each EU country)

SX_{ik} : represents the sectorial or structural component.

RX_{ik} : represents the regional, competitive or differential component.

METHODOLOGY

In order to study Panama's exports to the EU, an analysis was made of the exports registered between

Panama and each of the 28 countries of the European Union for the period 2013 to 2016. The data was obtained through the statistical source Eurostat (Statistical Office of the European Communities); since, the presentation format was more detailed than other existing statistical sources. The database extracted from Eurostat was built with the category of products with second-level codes, 52 products in total. However, for this study 46 were used that represented the products that Panama exported to the EU.

The period of 2013 to 2016 represents the three precedent years and the three subsequent years of the validity of the AACUE (the Commercial Pillar of the Association Agreement between the EU and CA entered into force in Panama on August 1, 2013). To analyze exports in a more detailed way, the dynamic Shift-Share analysis methodology was applied.

DATA ANALYSIS AND FINDINGS

This section presents the results obtained from the application of the dynamic Shift-Share analysis to evaluate the growth and rate of change of exports from Panama to the European Union from 2013 to 2016. At first, the behavior of the countries of EU destination of the exports of Panama was analyzed as a result of the decomposition of the three components: national component (NX)¹, structural component (SX) and regional component (RX). And secondly, the behavior of the main products exported from Panama to the European Union was analyzed in consequence also of the components mentioned above.

Descriptive Analysis

At this point it is intended to analyze globally Panama's exports to the EU. Table 1 presents the analysis of Panama's exports to the European Union. It was observed from a general context that exports registered a slight decrease of 3.18%.

Mean (Euro)	Median (Euro)	Standard Dev. (Euro)	Coefficient of Variation (%)	Maximum (Euro)	Minimum (Euro)	Mean Growth Rate (%)
567.978.365	580.137.842	84.930.833	14.95%	657.098.243	454.539.534	-3.18%

Table 1. *Descriptive analysis of Panama's exports to the EU*

To identify the main countries destinations and products that Panama exports to the European Union, a first analysis of the database was carried out using the following criteria: select all countries and products (two-digit level) that represent 94% of exports of Panama and group the rest in a category with the name of other EU countries and other products. 11 countries and 11 products were selected, the rest of the countries and products were grouped.

¹ The term "national" in this context refers to the EU as a whole, with different countries being considered as "regions"

Application of Dynamic Shift-Share analysis to EU countries Panama's export destinations

The destination country with the highest growth of exports from Panama was Denmark (€ 159,211,829) followed by Netherlands (€ 139,987,650); Cyprus (€ 34,140,400) and Spain (€ 8,627,783). On the other hand, the country that recorded the greatest decrease was Poland (€ 178,237,971) followed by Greece (€ 99,992,373); Belgium (€ 53,670,959); other EU countries (€ 34,383,023); Germany (€ 17,059,284); Sweden (€ 10,595,520); Italy (€ 5,831,323) and the United Kingdom (€ 2,828,001).

Countries	Total Growth	National Component (NX)	Structural Component (SX)	Regional Component (RX)
BE - Belgium	-53.670.959	1.438.060	-6.400.552	-48.708.467
CY - Cyprus	34.140.400	4.942.993	14.962.802	14.234.605
DE - Germany	-17.059.284	1.211.748	-5.123.878	-13.147.154
DK - Denmark	159.211.829	-333.304	-869.489	160.414.622
ES - Spain	8.627.783	2.217.086	5.529.183	881.515
GB - United Kingdom	-2.828.001	-4.036.657	-1.310.852	2.519.508
GR - Greece	-99.992.373	-19.249.860	686.133	-81.428.645
IT - Italy	-5.831.323	712.739	3.421.001	-9.965.063
NL - Netherlands	139.987.650	12.008.377	36.405.154	91.574.119
PL - Poland	-178.237.971	-45.544.979	-34.512.008	-98.180.984
SE - Sweden	-10.595.520	892.339	-5.659.739	-5.828.119
Other	-34.383.023	-14.889.333	-7.127.754	-12.365.936

Table 2. *Application of dynamic Shift- Share analysis to the destination countries of Panama exports (values in Euros)*

Figure 2 represents the percentage comparison of the effects of the national, structural and regional components of the dynamic Shift-Share analysis in relation to each destination country of Panama's exports.

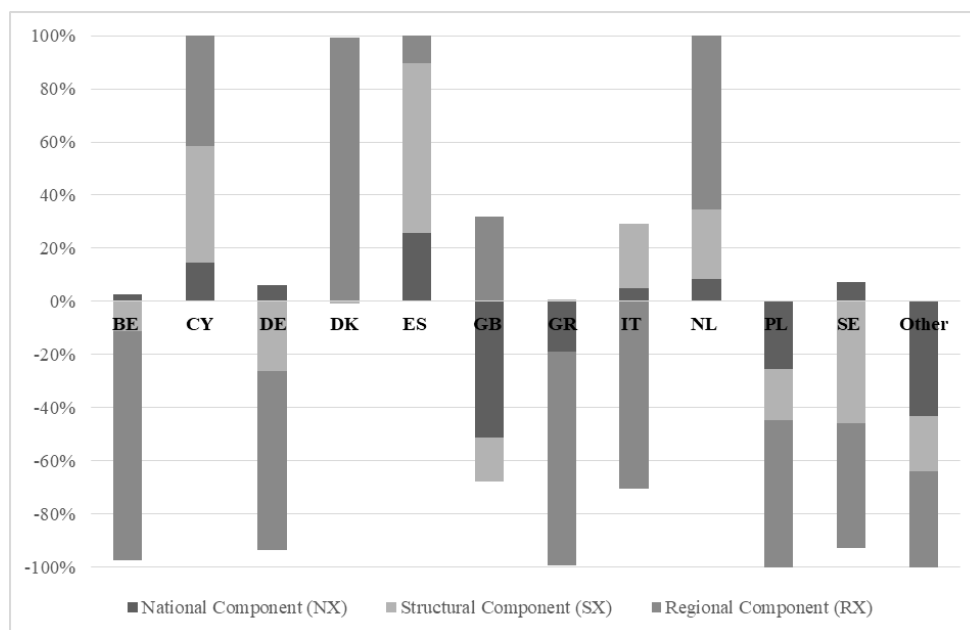


Figure 2. *Components of Dynamic Shift-Share Analysis: Panama's Export Destination Countries.*

For Cyprus, Spain and the Netherlands the national, structural and regional components were positive, that is, they contributed to the growth of Panama's exports. For Denmark, while the national and structural components were negative, the regional component was positive and contributed to the growth of Panama's exports. Regarding the decrease of exports from Panama to the EU, for countries such as Belgium, Germany and Sweden the national component registered positive values, however the structural and regional components were negative affecting Panama's exports. For the United Kingdom, although the regional component was positive, the national and structural components registered negative values that affected exports. For Greece, the national and regional components registered negative values and the structural component recorded a positive value. On the other hand, Italy registered positive values in its national and structural components, and a negative value in its regional component. For Poland and other EU countries, the three components registered negative values, so Panama's export to these countries was affected by this negative contribution.

The Figure 3 shows the characterization, in terms of structural component and regional component, of the EU countries of Panama's export destinations in the Shift-Share analysis graph.

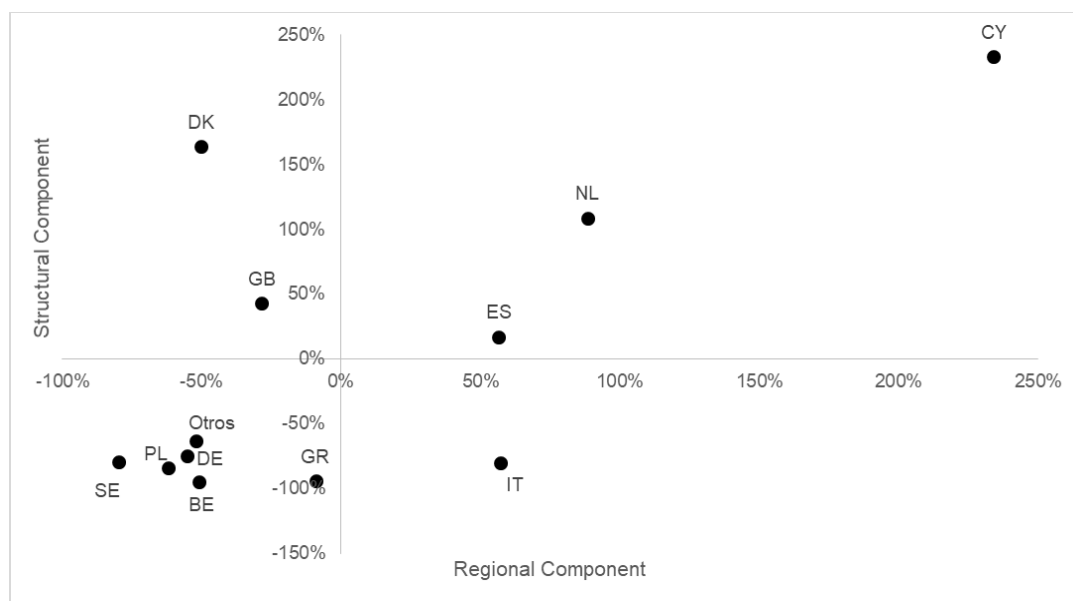


Figure 3. *Dynamic Shift-Share analysis chart for the destination countries of Panama exports (with logarithmic base 100 Scale)*

In the first quadrant (most favorable situation), Netherlands (NL), Cyprus (CY) and Spain (ES) were located, where the regional component and the structural component were positive; in the second quadrant was Denmark (DK) and the United Kingdom (GB) where the regional component was positive and the structural component was negative. In the third quadrant (worst case), Belgium (BE), Germany (DE), Greece (GR), Poland (PL), other EU countries and Sweden (SE), both components were negative. Finally, in the fourth quadrant, Italy (IT) was located, where the regional component was negative and the structural component was positive.

In summary, with the application of Dynamic Shift-Share, it was obtained that from 2013 to 2016, Panama's exports registered growth to destinations such as Cyprus, Denmark, Spain and the Netherlands. And to countries like: Germany, Belgium, Greece, Italy, Poland, United Kingdom, Sweden and other EU countries recorded decreases.

Dynamic Shift-Share analysis applied to products exported by Panama to the EU

The table 3 presents the results of the application of dynamic Shift-Share analysis to products exported by Panama to the EU. It was observed that the highest growth was recorded by other manufactured articles (€ 65,823,062) followed by Perishable foodstuffs (€ 10,361,543); other machinery apparatus and appliances, engines, parts thereof (€ 5,360,075); stimulants and spices (€ 3,178,696); beverages (€ 3,090,223); animal feedingstuffs and foodstuff waste (€ 1,764,605); miscellaneous articles (646.979 €) and leather, textiles and clothing (€ 542,397). Conversely, the largest decrease was recorded by transport equipment (€ 77,574,785) followed by other vegetables, fresh or frozen, fresh fruit (€ 38,343,443); other products (€ 28,956,588) and oil seeds and oleaginous fruit and fats (€ 6,523,556).

Eurostat Code	Products	Total Growth	National Component (NX)	Structural Component (SX)
3	Other vegetables, fresh or frozen, fresh fruit	-38.343.443	3.074.686	-41.418.129
12	Beverages	3.090.223	-292.904	3.383.127
13	Stimulants and spices	3.178.696	200.285	2.978.411
14	Perishable foodstuffs	10.361.543	2.249.983	8.111.560
17	Animal feedingstuffs and foodstuff waste	1.764.605	553.348	12.112.567
18	Oil seeds and oleaginous fruit and fats	-6.523.556	-3.253.047	-3.270.509
91	Transport equipment	-77.574.785	-57.008.118	-20.566.667
93	Other machinery apparatus and appliances, engines, parts thereof	5.360.075	-2.419.265	7.779.340
96	Leather, textiles and clothing	542.397	1.660.323	-1.117.926
97	Other manufactured articles	65.823.062	6.042.210	59.780.852
99	Miscellaneous articles	646.979	-736.130	1.383.109
-	Other	-28.956.588	-10.702.162	-18.254.426

Table 3. *Application of dynamic Shift-Share analysis to products exported by Panama to the EU (Values in Euros).*

The Figure 4 represents the percentage comparison of the effects of the national, structural and regional components of the dynamic Shift-Share analysis in relation to each product exported from Panama to the EU.

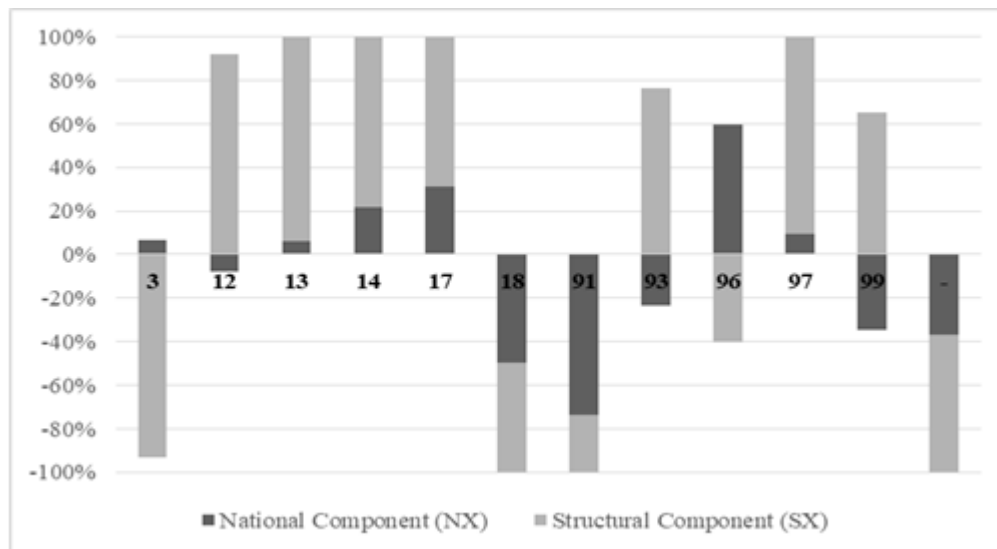


Figure 4. *Dynamic Shift-Share analysis components: products exported by Panama to the EU*

For stimulants and spices; perishable foodstuffs animal feedingstuffs and foodstuff waste and other manufactured articles both components of the analysis were positive and contributed to the growth of Panama's exports. For beverages, other machinery apparatus and appliances, engines, parts and miscellaneous articles, despite registering a negative national component, the structural component registered a positive value and contributed to the growth of exports. For leather, textiles and clothing the national component was positive, contributing to the growth in its export, although the structural component was negative. Regarding the decrease of products exported by Panama to the EU; for oil seeds and oleaginous fruit and fats; Transport equipment and other products exports were affected by the negative contribution of the national and structural component. Exports of other vegetables, fresh or frozen, fresh fruit were affected by the negative contribution of the structural component. It should be noted that a positive structural component expresses the increase of a certain product exported by Panama to the EU and a negative structural component expresses a decrease of a certain product exported by Panama to the EU. For this analysis the regional component was not considered because the exports of a product to several regions registered increases (positive sign) or decreases (negative sign), which makes the sum of that product for several countries equal 0.

The Figure 5 shows a representation of the structural component of dynamic Shift-Share analysis: products exported by Panama to the EU.

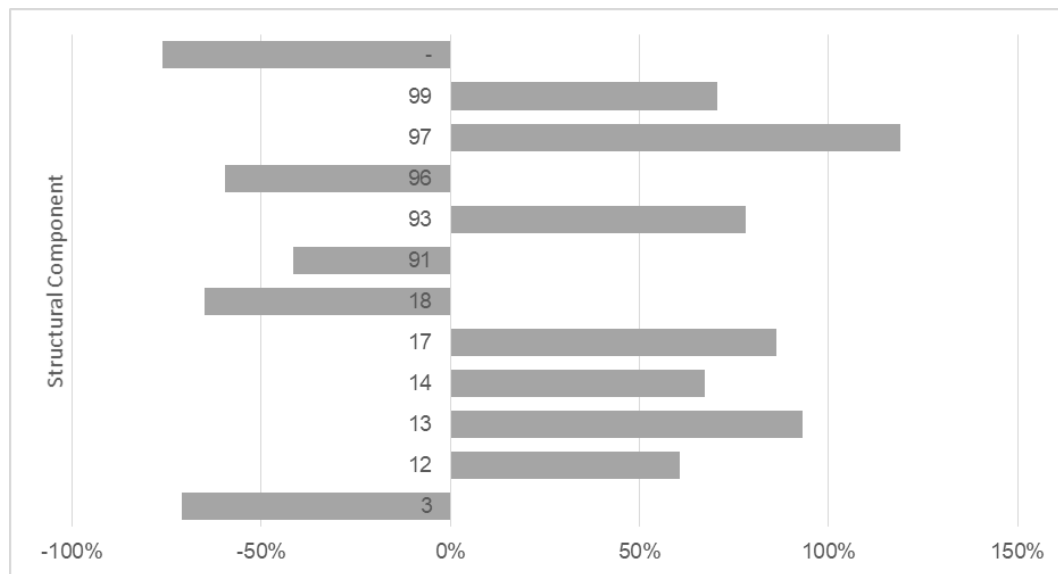


Figure 5. *Structural component graph of the dynamic Shift-Share analysis for exported products (with logarithmic base 100 Scale)*

In the Figure 5 it is observed that the product with the highest contribution in the structural component was: other manufactured articles followed by stimulants and spices; animal feedingstuffs and foodstuff waste; perishable foodstuffs; other machinery apparatus and appliances, engines, parts; beverages; miscellaneous articles and leather, textiles and clothing. Conversely, the product with the lowest contribution in the structural component was recorded by others products followed by oil seeds and oleaginous fruit and fats; transport equipment and other vegetables, fresh or frozen, fresh fruit.

In summary, with the application of Shift-Dynamic Share, it was obtained that from 2013 to 2016, Panama's exports registered growth in products such as: beverages; stimulants and spices; perishable foodstuffs; animal feedingstuffs and foodstuff waste; other machinery apparatus and appliances, engines, parts; leather, textiles and clothing; Other manufactured articles and miscellaneous articles. And to products like: other vegetables, fresh or frozen, fresh fruit; oil seeds and oleaginous fruit and fats; transport equipment and other products recorded decreases.

DISCUSSION AND CONCLUSIONS

The main objective of this work was to analyze Panama's exports to the EU. To achieve the objective, the dynamic Shift-Share analysis methodology was applied to the most recent data on Panama-European Union trade available in the Statistical Office of the European Communities (Eurostat), in the corresponding period between 2013 and the year. 2016. This analysis has made it possible to identify the main countries destinations and products of Panama's exports to the EU. As well as, to characterize and find explanatory factors of the evolution of Panama's exports throughout the post-AACUE period.

Based on the results obtained from the descriptive analysis of Panama's exports to the European Union, it is concluded that, during the period from 2013 to 2016, Panama has not taken advantage of the benefits of this agreement because there has been a decrease of 3.18 %.

On the other hand, it is concluded that the destination countries that represent 94.19% of Panama's exports were: Germany, Belgium, Cyprus, Denmark, Spain, Greece, Netherlands, Italy, Poland, the United Kingdom and Sweden. And the products that represent 94.53% of Panama's exports were: beverages; stimulants and spices; perishable foodstuffs; animal feedingstuffs and foodstuff waste; other machinery apparatus and appliances, engines, parts; leather, textiles and clothing; other manufactured articles: miscellaneous articles; other vegetables, fresh or frozen, fresh fruit; oil seeds and oleaginous fruit and fats and transport equipment.

Relatively, to the application of the dynamic Shift-Share analysis it was possible to know that, the exports of Panama in the period from 2013 to 2016 towards Denmark and Netherlands registered growths due to the effects mainly of the regional component (growth of exports from Panama to that country); Cyprus and Spain recorded growth due to the effects of the structural component (growth in products exported by Panama). On the other hand, exports from Panama registered decreases in Belgium, Germany, Greece, Italy, Poland and Sweden due to the effects of the regional component; and the United Kingdom due to effects of the structural component.

Regarding the products exported by Panama to the European Union, beverages can be exhibited; stimulants and spices; perishable foodstuffs; animal feedingstuffs and foodstuff waste; other machinery apparatus and appliances, engines, parts; leather, textiles and clothing; Other manufactured articles and miscellaneous articles registered growth mainly due to the effects of the structural component. Lastly, other vegetables, fresh or frozen, fresh fruit; Oilseeds and oleaginous fruit and fats and other products registered decreases due to the effects of the structural component and transport equipment registered a decrease due to the effects of the national component.

In short, according to the Shift-Share analysis, Panama's exports to the European Union were affected by the decreases in exports to countries such as: Germany, Belgium, Greece, Italy, Poland, the United Kingdom, Sweden and other countries of The EU. And by the decrease in exports of the following products: other vegetables, fresh or frozen, fresh fruit; oil seed and oleaginous fruit and fats and other products; transport equipment and other products.

Since the entry into force of the AACUE, imports into Panama from the EU have decreased and exports from Panama to the EU have maintained a slight decrease, with a tendency to grow. In this measure, it can be said that the validity of the AACUE commercial pillar has allowed to balance the trade balance of Panama.

Although Panama has rich soils for agriculture, infrastructure, equipment and labor for the production of goods and services not only to meet the demands of the national market but also the international market stops in just maintaining what is necessary and To unnecessarily import goods and services that are already owned instead of exploiting.

In summary, it can be expressed that in Panama, exports are not seen as a priority / opportunity despite the unequalled resources and infrastructure that are available in comparison with the Central American region. So it is important to suggest increasing the production and transformation of products of interest to the countries that make up the EU and in that sense take advantage of the market that was opened by the AACUE.

Finally, this research presents a contribution to existing statistics on Panama's exports to the European Union. And it can be a useful tool for businessmen and politicians who wish to delineate corporate or national strategies to promote and boost trade between Panama and the European continent.

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THE SMART CITY BRAND INDEX

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ABSTRACT

In an era when everything seems to be smart, the development of more intelligent cities becomes imperative. The “brand” of cities plays an important role in attracting investment, tourists, firms, talents, etc (Shuv-Ami, 2016; Apostolakis et al., 2015). This paper aims at creating a smart city brand index and at applying it to the city of Turin thanks to two Anholt’s (2011) and Lucarelli’s (2012) theoretical frameworks.

Methodology consists of a review of literature on the brand of smart cities and the dimensions affecting it; the administration of a questionnaire to a sample of 120 people from Piedmont region asking them to evaluate the different dimensions affecting the Turin brand as smart city candidate through a 5-points Likert Scale.

Results show that the smart city brand is affected by six dimensions and a discrete level of evaluation for Turin Brand, highlighting which area need to be more developed.

The measure for smart cities candidates like Turin allows to have a projection of its brand as smart city before 2020 and to suggest the strategies needed to better develop the smartness of the brand.

Despite several attempts to measure place brand at different levels, the brand of smart cities has been object of scarce contributions and none of them provides a measure of it.

Keywords: Smart Cities; City Brand; Place Branding; Measurement; Sustainable Strategies; Turin; Smart city brand, Brand equity, Mixed analysis.

INTRODUCTION

It is estimated that about 80% of the world’s population will be living in urban areas by 2020 (Lopes et al., 2017): this forces cities to consider challenges associated with population and urban growth, like the related urban development and efficient management, socio-economic prosperity and environmental sustainability, as priorities (Yigitcanlar, 2015; Yigitcanlar, Dur, & Dizdaroglu, 2015; Tardivo, Scilla, & Viassone, 2014; UN, 2014; Bulu, Önder, & Aksakalli, 2014; UN-Habitat, 2013). There is a need to redefine city operating models and develop new visions and strategies for a sustainable development, which should be in line with territorial traditional and new vocations. This challenge can be faced with the development of more intelligent cities, able to apply a wide range of electronic

and digital technologies (Hollands, 2008; Shin & Shin 2012; Angelidou, 2014; Heo et al., 2014) and to face current main problems like climate change, high consumption of energy sources, unsuitable infrastructures, increasing competition (Belloso, 2012). At the same time, as for companies, regions, countries and tourist destinations (Gertner, 2011; Hankinson, 2004), also for cities the brand plays a very important role (Anholt, 2006), in particular in attracting investment, tourists, firms, talents, events, etc. and city branding is a relatively new area of academic research. As a matter of fact, “cities have always been brands, in the truest sense of the word” (Anholt, 2011), moreover if readers think to Paris as the *romantic* city, Milan as the *stylish* one, New York as the *energizer* city, Washington as the *Power*, Tokyo as the *modernity*, Lagos as *corruption*, Barcelona as *culture* and Rio as *fun* (Anholt, 2011). So, this attention to city brand constitutes an approach to integrate, guide and focus place management (Hankinson, 2001; Hankinson, 2004; Kavaratzis, 2004). For these reasons, smart cities consider their brand as a key driver of their competitive advantage and need to be measured in order to be improved. Despite several attempts to measure place brand at national (Fetscherin, 2010; Anholt, 2002), regional (Zenker & Jacobsen, 2015; Passeri, Mazzi, & Viassone, 2014; Kim, 2013) and urban (Anholt, 2002; Brencis & Ikkala, 2013) level, the brand of smart cities has been object of scarce contributions (Kumar et al., 2017; Pasquinelli, 2015; Yigitcanlar, 2015; Belloso, 2012) and none of them provides a measure of it.

The scope of this research consists in solving this problem providing a measurement of this innovative type of brand; in fact, this paper aims at creating an index able to measure for the first time the brand of a smart city, adapting dimensions – provided by literature and by practice – used to measure city brand with the peculiarities characterizing this new type of cities.

This research is important, because it places in a debate on urban policy, which recently aroused many scholars’ interests (Crivello, 2015), trying to cover the gap existing in the literature review of a measurement of the city brand. The resulting index (Smart City Brand Index - SCBI) is applied to Turin, an Italian city that, collecting the challenge launched by the European Union in 2010 with the initiative Smart Cities & Communities, is a candidate to become a smart city and it is particularly dynamic in proposing initiatives to achieve this goal, such as TAPE (Turin Action Plan for Energy), Torino Master Plan for Torino Smart City and the participation to several announcements. This index can be very useful, in particular for tourist operators in order to measure this process on the way and, eventually, to correct some strategies. This objective is achieved through a review of literature on the brand of smart cities and the dimensions affecting it, the administration of a questionnaire to a sample of 120 people from Piedmont asking them to evaluate the different dimensions affecting Turin brand as smart city candidate through a 5-points Likert Scale and the subsequent development of new strategies.

This paper is structured in five main paragraphs: after the present short introduction on the research topic, it is presented a review of the theoretical background on both smart cities definition and characteristics and on the measurement of city brand; furthermore, a description of the methodological framework is provided, followed by the analysis and discussion of results. Finally, conclusive remarks are provided in addition to managerial implications and limits of the research.

THE SMART CITY CONCEPT

The search for a more efficient organization of a city has to the definition of a new paradigm called Smart City (SC). Problems associated with urban agglomerations have usually been solved by creativity, human capital and cooperation among stakeholders, to find “smart” solutions (Caragliu et al., 2011). Smart solutions means to find a “best practice framework for setting goals” and a SMART (Drucker, 1954) goal be (a) specific, (b) measurable, (c) achievable, (d) realistic and (e) time related: *specific* because the goal must be clearly defined, *measurable* to show how long does it take to reach it, *achievable* to give resources and skills to the goal, which has to be reachable, *realistic* to be defined clearly with the resources and ability given and *time related* as a clearly and well defined timeline, shared with all the community. Therefore, the concept of smart city reveals a new approach to solve urban problems and promote sustainable urban development (Hollands, 2008). However, the term Smart city is not of easy definition; in fact, it has been described in different ways by scholars (Scuotto et al., 2016; Ferraris et al., 2017; Washburn et al., 2010; Lazzaroïu and Roscia, 2012; Kourtit and Nijkamp, 2012). Scuotto et al. (2016) structures Smart City definition on the availability and quality of the ICT infrastructures, Ferraris et al. (2017) includes and stresses the role of human capital and education in urban development, describing SC as the drivers of entrepreneurial innovation and industry growth. Lazzaroïu and Rouscia (2012) state SC as “a community of average technology size, interconnected and sustainable, comfortable, attractive and secure”. Washburn et al. (2010) conceptualizes smart city by laying an explicit emphasis on the use of smart computing technologies. Endly, Kourtit and Nijkamp (2012) state smart cities is composed of different factors such as human capital, infrastructural capital; social capital and entrepreneurial capital (e.g. creative and risk-taking business activities).

How to assess a Smart City has raised interest in academical researches in the last ten years (Lucarelli, 2012). The Smart City Wheel suggests six dimensions in this regard (Giffinger et al., 2007):

1. *Smart Economy*: including flexibility in the labour market, entrepreneurship and productivity, economic progression and an overall culture of innovation;

2. *Smart People*: social and ethnic diversity, community participation, creativity, flexibility and a culture of life-long learning;
3. *Smart Governance*: government transparency, involvement of the public in decision making, public and social service;
4. *Smart Mobility*: local and national accessible, safe and sustainable transportation system, linked to ICT-infrastructures;
5. *Smart Environment*: reduction in pollution, higher environmental protection, sustainable resource management;
6. *Smart Living*: cultural and educational facilities, health quality and conditions, accessibility to quality housing, public safety, social integration and tourist attractions.

THE MEASUREMENT OF THE SMART CITY BRAND

The building, exploitation and appropriation of city brand are not new practices for alluring tourists, students, workers and investors but they have seen fast and progressive sophistication over the last decades (Kavaratzis and Ashworth 2010).

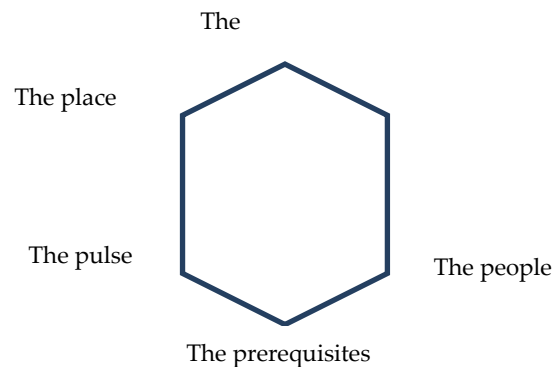
Good city branding attracts and retains new talent, startups, services, and historical heritages (such as traditional festivals and cultural events) (Lucarelli, 2012). City branding also enhances the ability of local companies to market their products and services internationally. In particular, the city brand may represent a source of values and symbols that legitimize and helps understand local smart specialization rationale, hence fostering the path of innovation at local and regional scale (Pasquinelli, 2015).

For this motivation, it is more and more important to give a measurable index to SC branding. In the literature, there is not a standardized measure of the level of territorial brand able to allow comparisons and it is very difficult to identify drivers and methodologies for the building of a statistically strong index (Zenker, 2011; Passeri et al., 2015). In the light of the smart concept, this paper adopts two frameworks to structure the questionnaires: firstly, an adaptation of the Anholt's City Brand Index (2006; 2011) based on six dimensions of the hexagon, Anholt has defined in 2006 , secondly, a city brand measurement by Lucarelli (2012), which refers to the methods and tools adopted into order to evaluate the impact of city brands:

Anholt's hexagon (Fig. 1) shows how country's people, policies, products, culture, business climate and tourist attractions are a complex mixture of elements, which are summarized in the city brand hexagon by (a) the presence, based on the city's international status and standing and the global familiarity/knowledge of the city, (b) the potential, measuring the perception of economic and

educational opportunities within the city, (c) the people, revealing whether the inhabitants of the city are perceived as warm and welcoming, (d) the prerequisites, determining how people perceive the basic qualities of the city, (e) the pulse, measuring the perception that there are interesting things to do in the spare time and how exciting the city is perceived to be, and (f) the place, exploring people's perceptions about the physical aspect of each city in terms of pleasantness of climate, cleanliness of environment and how attractive its buildings and parks are.

Fig.1 The city brand hexagon



Source: Anholt S., 2011

Notwithstanding this hexagon is a generalization of the countries (Anholt, 2011), Authors have analysed and measured this six dimensions in the view of smart city as Turin is. As results, the index developed is an adaptation of the Anholt's City Brand Index considering the facets of a Smart City.

The second framework used to decide the methodology of this research is the city brand measurement by Lucarelli (2012), where three different types of analyses are conducted: (a) qualitative analysis, (b) quantitative analysis, and (c) a mixture of qualitative and quantitative analysis. Authors have studied these types of analyses, choosing the mixed one to conduct this research, to not lose advantages of both qualitative and quantitative methods.

Starting from Anholt's (2011) and Lucarelli's (2012) frameworks, the aims of this work is to investigate the following research question thanks to the mixed-methods of questionnaire and a theoretical state of the art about SC:

RQ1: How to assess the Smart City Brand Index?

METHODOLOGICAL FRAMEWORK AND SAMPLE DESCRIPTION

After a deep analysis of the literature review on both SC brand and the two theoretical frameworks (i.e. Anholt's six dimensions and Lucarelli's city brand measurement), Authors have passed to the administration of a questionnaire to a sample of 120 Piedmont people, selected on the basis of age and sex. The aim was to evaluate the different dimensions affecting the brand of the smart city candidate. In this regard, the questionnaire (Lucarelli, 2012) involves 29 items organized in the six Anholt's (2011)

dimensions as argued in the theoretical background of this paper. These dimensions are evaluated by stakeholders through a 5-points Likert Scale (Likert, 1932), asking them to express their assessment in a range from *“Totally disagree”* to *“Totally agree”*. It is attributed a score to each single item and the maximum total sum of all items is 100. Throughout the double summation of the scores attributed to each single item of all the dimensions included in the questionnaire, it is created the SCBI for the city of Turin. The survey was uploaded on a web platform and the link was sent to potential respondents. The reliability of the instrument and its dimensions was tested through using Cronbach's Alpha. The overall survey showed a strong reliability, expressed by a high level of Cronbach's Alpha (0.912); this corresponds to a considerable level of internal consistence of the scale used with the sample of reference.

Finally, strategic paths of action are suggested to territorial bodies in order to further improve the brand of the smart city candidate. This research wants to analyse Turin as a SC, integrating recent studies (Crivello, 2015; Vanolo, 2014) about Turin as a SC, where scholars argue this city cannot be classified as a SC, cause to the lack of sharing cars (Crivello, 2015) or collaboration between public sector and private one (Vanolo, 2014) to concretize this idea of city smartness. Repliers were 94 people selected random. The demographic characteristics of the sample are based on sex and age in six different classes: (a) *18-25 years old (27,7% of the sample)*, (b) *26-35 years old (27,7% of the sample)*, (c) *36-45 years old (23,4% of the sample)*, (d) *46-55 years old (7,4% of the sample)*, (e) *56-65 years old (8,5% of the sample)* and (f) *over 65 years old (1,1% of the sample)*.

The genre of interviewer is composed of 44.7% of males and 54.3% of women (1.1 % missing).

ANALYSIS AND DISCUSSION OF RESULTS

Results indicate the evaluation of the brand of Turin as smart city is discrete. In fact, the SCBI corresponds to 3.3151 out of 5. With respect to the six dimensions evaluated (Presence, Place, Pre-requisites, People, Pulse, Potential) (Anholt and GfK, 2011), the most positive is the *“Presence”*. In fact, the item *“Turin is a city based on the culture”* shows the highest percentage (91.5%). On the contrary, the most critical dimension is *“Place”*, with the highest disagreement expressed for the item *“I perceive the city of Turin as a city few chaotic and careful to the question of pollution”* (52.2%). The city of Turin shows a different level of agreement for the different dimensions even if every dimension registers an average level of agreement (levels 4.5) higher than the level of disagreement (level 1 and 2). Furthermore, also within the same dimension, it shows strong differences among items. For example, with respect to *“Presence”* - the dimension with the highest average values of agreement - while Turin seems to be universally renowned as a cultural city it is still not considered as a smart or innovative city (respectively 33% and 24.5% of disagreement). *“Place”*, the dimension with the average highest levels

of disagreement, shows a value equal or higher than 50% with regard to the aspects of cleanliness and of the valorization of parks and green areas. The second dimension with highest averaged level of agreement is “*Pulse*”, that shows a peak of agreement with reference to the item “it is of high interest thanks to the several tourist and cultural attractions offered” (75.6%).

In summary, Turin is largely known as a cultural city, of tourist high interest thanks to its tourists and its several cultural attractions. This city is now perceived more as a project platform – both cultural and technical – than a rigid receipt to territorial development. Furthermore, it is not already associated immediately with the concept of “Smart City” and citizens perceived some important problems such as pollution, chaotic characteristics and a too insufficient involvement of citizens in the decisional process. This last problem is considered as a priority in the Turin agenda that, in the future, will favor the participation of citizens into the planning and realization of the smart city. In the same way, pollution can be faced through different actions such, for example, by boosting usage of electric vehicles (Aoun, 2013).

Turin is drawing important strategies, in order to reduce pollution; important examples are represented by alternative heating systems, urban plan of sustainable mobility and energetic requalification of buildings.

CONCLUSIONS

This paper aimed at creating an index able to measure for the first time the brand of a smart city, adapting dimensions – provided by literature and by practice – used to measure city brand with the peculiarities characterizing smart cities. The resulting index (Smart City Brand Index - SCBI) is applied to Turin, an Italian city that, collecting the challenge launched by the European Union in 2010 with the initiative Smart Cities & Communities, is a candidate to become a smart city.

At theoretical level we contribute to literature given that, despite several attempts to measure place brand at national (Fetscherin, 2010; Anholt, 2002), regional (Zenker & Jacobsen, 2015; Passeri, Mazzi, & Viassone, 2014; Kim, 2013) and urban (Anholt, 2002; Brencis & Ikkala, 2013) level, the brand of smart cities has been object of scarce contributions (Pasquinelli, 2015; Yigitcanlar, 2015; Belloso, 2012). In addition to this, none of these studies provides a quantitative measure.

From a managerial point of view, this model can be very useful, in particular for Bodies and tourist operators in order to correct policies and develop alternative strategies. With specific reference to the Turin case, policy makers and operators can develop a table of priorities based on the weakest points of the model. In this regard, the city of Turin has reached a discrete level of brand as smart city and has, as points of strength, the dimensions “Presence” and “Pulse” while it shows several problems with regard to the dimension “Place”. Therefore, despite the strong perception of Turin as a cultural

and tourist city, it should carry out further efforts, in particular in terms of reduction of pollution, involvement of citizens in decision-making in order to be identified as a “smart city”. Regarding the dimension “Place”, some important actions could be: a) the creation of incentives for the purchase of ecological cars; b) increasing of the length of cycle lanes; c) the communication to citizens of the results of their efforts concerning energy conservations and separate waste collection; d) the minimization of the waste production; e) boosting energy conservation in private and public buildings.

Concluding, this research represents a first starting point to evaluate the efforts carried out by Bodies in order to create a brand of smart city around Turin and provides useful management implications. Anyway, it is an exploratory study that should be tested with further suitable statistical tools; furthermore, the evaluation of the brand is based on subjective criteria supported by literature and evaluated by stakeholders and it is applied to a single case study (the city of Turin) without comparison with other national or European smart city candidates. Finally it provides an “in progress” SCBI. In the future, this index can be applied to all Italian smart cities candidates for comparative purposes and it will be also interesting to compare its value with that obtained by every city in 2020 when the process to become smart city will be over.

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ENTREPRENEURSHIP AMIDST CHANGING INSTITUTIONS: A PANEL STUDY ACROSS COUNTRIES

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ABSTRACT

Recent research has sought to explain variation in rates of entrepreneurship as a function of "economic freedom," but present non-cumulative, sometimes contradictory findings. These results stem from three issues. First, most studies use cross-sectional data, providing little insight on how the evolution of institutions impact entrepreneurial behavior. Second, many studies suffer from model specification error, using all institutional variables as direct predictors of entrepreneurship, thus eliminating path-dependent or moderating influences. Third, signaling theory suggests that changes in institutional conditions, rather than levels, can lead to changes in inclinations to engage in entrepreneurship. Drawing on economics and Austrian theory, this empirical study proposes a new model and addresses these three issues. We use entrepreneurship activity data from over 60 countries across a ten year time period. Our findings suggest that the better predictors of future entrepreneurial activity are changes in institutional conditions and the strength of influences resulting from confluence among strong institutions.

Keywords: Entrepreneurship, startup, institution, economic freedom, longitudinal, panel data

INTRODUCTION

The relationship between entrepreneurship and beneficial economic development (Newbert, 2003) has been well documented (Birch, 1979, Reynolds et al., 2000). Thus entrepreneurial development is seen by many government and community leaders as a gateway to economic vitality, leading to a growing tax revenue base, enhancing prospects for self-generating innovation and future growth, and yielding qualitative improvements to an area's social and economic fabric (Acs, 1996, Birch, 1979, Kirchoff and Phillips, 1991, Romer, 1990, Zacharakis et al., 1999).

The bulk of the research examining this relationship has been conducted in developed regions of the world such as the United States (West and Bamford, 2005) and western Europe (e.g. Busenitz et al., 2000, Cooke, 2001, Davidsson, 1995), or with respect to technology firms and cluster development (e.g. Cooke and Leydesdorff, 2006, Laukkanen, 2000), where the institutions and infrastructures have the

capability of supporting such efforts. However, recent work also addresses transition economies and emerging economies (e.g. Ahlstrom and Bruton, 2006, Bruton and Rubanik, 2002, McMillan and Woodruff, 2002, Yiu et al., 2005), as well as entrepreneurship in subsistence economies (West et al., 2008), where institutional voids (Khanna and Palepu, 1997) are more likely to exist.

Differences in the rate and type of new entrepreneurship activity across countries are often investigated in the context of institutional conditions. These studies rely on published cross-country indices of economic freedom using variables that proxy institutions to measure dimensions such as the existence property rights and the rule of law, freedom to trade and investment freedom, as well as government programs and policy that either prescribe or proscribe economic activity.

But not all institutions have the same relationship to entrepreneurial aspirations or activity. Many institutions often epitomize the opposite of entrepreneurship. Where entrepreneurship is about creation and breaking new ground in one way or another, institutional forces – whether they be regulatory, normative, or cognitive (Scott, 2007) – are often concerned with how organizations secure position by "conforming to the rules and norms...and meanings that limit...beliefs and actions" (Bruton et al., 2010: 422). Where entrepreneurship is rooted in individuals constructing market-relevant coherence out of information search amidst unknowable uncertainty (Hayek, 1945, Kirzner, 1979, Knight, 1921), institutions are about efforts to channel behavior through humanly-devised constraints that reduce uncertainty through structure (North, 1990). But other institutions are occasionally viewed as enabling entrepreneurship. Particularly relevant are institutions that enable entrepreneurs to make credible commitments, such as those which protect property rights, enforce contracts, and reduce transactions costs (Ingram and Silverman, 2002, McMullen et al., 2008). Bruton et al. (2010) imply these institutions create the freedom to transact with less unanticipated volatility, and are especially important in emergent markets. Together, both constraining and enabling institutions affect entrepreneurial behavior in different ways.

Furthermore, entrepreneurs are more sensitive than others to conditions in the environment, leading to the identification of new business opportunities. Their propensities to act are deeply-rooted in search that reveals new information (Fiet, 1996), as well as a facility for sensing opportunities that derive from conditions which change over time (Bird, 1988, West and Meyer, 1997). So whereas institutions are complex and slow to change (North, 1990), entrepreneurial action may be particularly responsive to how quickly institutional conditions around them are changing.

In order to more accurately explain cross-country variation in rates of entrepreneurship, in this study we propose and test a model which draws on both Austrian economics and Institutional theories. At the core of each theory is a focus on individual behavior in a markets and exchange environment. The model we propose distinguishes among dimensions which are foundational causes of a markets and

exchange environment, characteristics of a markets and exchange environment that enable entrepreneurial behavior, and constraining factors that moderate the extent to which such a system can produce healthy economic activity. Relying on signaling theory (Spence, 1973), which helps understand how entrepreneurs can discover in an environment of uncertainty (Levie and Autio, 2011), we also focus on changes in institutional conditions as predictors of entrepreneurial behavior.

For source predictive data we draw on data found in freedom indices subcomponents as proxies for enabling and constraining forces on individual economic behavior. Longitudinal data enables analysis of time-lags and of the effect of changes in predictor conditions. Of special importance is the examination of the moderating influences of government actions on the markets and exchange environment. This analysis can lead to better understanding of practical effects that governments have on entrepreneurship, which is especially important today due to the tumultuous nature of the global economy that have left many across the world unemployed. Using available data from the Global Entrepreneurship Monitor (GEM) studies, the dependent variables in this study are levels of opportunity-based entrepreneurship and necessity-based entrepreneurship. These may be affected by the existence of a robust markets and exchange environment (Newbert, 2003), as well as by institutional forces created through government actions (McMullen et al., 2008).

RESEARCH ON ENTREPRENEURSHIP AND INSTITUTIONS

The relationship between entrepreneurship and economic development has been explored in recent research. Looking at just U.S. data, Kraft and Sobel (2005) find that sole proprietorship growth rates are positively predicted by an index of economic freedom relevant to U.S. states as well as to low rates of government taxation. In an interesting follow up study examining entrepreneurship activity across countries participating in GEM studies, Sobel et al. (2007) discovered that influencing government policy can either impede or facilitate new venturing activity because policy interrupts normal free market activity. This is an important contribution because it recognizes that some institutions do forestall entrepreneurial activity, but some may provide momentum for additional activity when the proper underlying free market conditions exist.

Since institutions can either constrain or enable the freedom to act and to transact, recent research has sought to explain variation in rates of entrepreneurship as a function of “economic freedom.” These and other studies rely on published cross-country indices of economic freedom variables that proxy constraining or enabling institutions to measure dimensions such as the existence property rights and the rule of law, freedom to trade and investment freedom, as well as government programs and policy that either prescribe or proscribe economic activity. Research seeking to understand rates of entrepreneurship based on GEM data have found differential influences of a variety of factors

including positive effects of property rights, labor freedom, fiscal freedom and monetary freedom (McMullen et al., 2008), but negative effects of government size (Bjornskov and Foss, 2008). While Nystrom's (2008) study of OECD countries confirms the positive influence of property rights on self-employment rates, however, her study in contrast provides evidence that the size of government and regulations placed on labor and credit exert positive influences on self-employment.

Previous efforts which fail to distinguish between types of influences can, in fact, result in models that jeopardize the cause-effect understanding of entrepreneurship because they confound path-dependent variables with other intervening and moderating variables. For example, the existence of property rights and the rule of law (Hayek, 1944; Locke, 1689) are "paramount" *ex ante* conditions that lead to the existence of a vibrant markets and exchange environment in which individuals are free to choose and act (Troilo, 2011). Similarly, government actions have a *moderating* influence on the extent to which an economic system characterized by freedom of action can generate economic activity and growth. Government itself does not directly create entrepreneurship, but instead affects the markets and exchange environment in which entrepreneurial activity can occur. Yet prior studies often combine institutional variables together as direct predictors of rates of entrepreneurship or rely upon composite measures, which eliminate the examination of such path-dependent or moderating influences. Not surprisingly, therefore, studies examining how freedom-related institutions affect the rates and types of entrepreneurial behavior across countries have reported quite different results, presenting non-cumulative, sometimes contradictory findings (e.g. see Bjornskov and Foss, 2008, McMullen et al., 2008, Nystrom, 2008).

Table 1 summarizes the results of previous published studies on the relationship between entrepreneurship and institutions. Reading down the columns of this table, it is evident that prior research has failed to identify consistency in the influence of any one institutional factor used to understand country-level rates of entrepreneurship. Reading across the table it can be observed that different studies utilize different combinations of institutional variables in their models. Thus prior research has not uniformly tested the full suite of institutional variables of interest.

	Enforcement		Markets & Exchange Institutions				Government Institutions			
	Prop Rights	Rule of Law	Business Freedom	Labor Freedom	Trade Freedom	Invest Freedom	Fiscal Freedom	Monetary Freedom	Financial Freedom	Govt Size
Van Stel et al. 2007			ns	neg			ns		ns	
Bjornskov Foss 2008	ns				ns			neg		neg
Nystrom 2008			pos	pos	ns			ns	neg	neg
McMullen et al. 2008	pos	ns	ns	pos	ns	ns	ns	ns	ns	ns
Levie Autio 2011		ns	pos							
Troilo 2011	mix	mix	mix							
Aidis et al. 2012			ns							neg
Diaz-Casero 2012	pos	ns	ns	ns	pos	ns	ns	ns	pos	pos
Estrin et al. 2013	ns	neg								neg
Crum 2014	pos		mix		pos			mix		pos
Chowdhury 2015	pos	pos	pos				pos			
Valdez Richardson 2013	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Kuckertz 2016	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

Table 1: Results of Recent Research Testing Institutional Effects on Entrepreneurship

It is for this reason that in the discussion of their own results McMullen et al. warn how "studies may wish to employ the economic freedom variables more judiciously" (2008: 889). Bruton et al. encourage scholars who investigate institutions to "do so in a theoretically sound manner" (2010: 433). In order to more accurately explain cross-country variation in rates of entrepreneurship, we propose and test a model which draws on both economics and Austrian theories. At the core is a focus on individual behavior in a markets and exchange environment, and especially on how prospective entrepreneurs respond to changes in institutional conditions.

HYPOTHESES DEVELOPMENT

Economic activity in a country is influenced by different types of institutions, and entrepreneurial activity is no exception. A system of markets and exchange is comprised of informal enabling institutions that allow for choice and for the flow of labor and capital to fill perceived voids within the market (Friedman, 1962, Hayek, 1944, Smith, 1776). In such a system there is a greater opportunity for entrepreneurial ventures (Baumol et al., 2007, Knight, 1921, Phelps, 2006, Schumpeter, 1942). The effects these institutions have on entrepreneurship are moderated by a framework of government rules and regulations, which as earlier described tend to bracket and constrain behaviors to developed norms. Both enabling and constraining institutions, in turn, exist within an overarching framework of rights and laws embodied in legal institutions (often proscribed constitutionally). Our model is depicted in Figure 1.

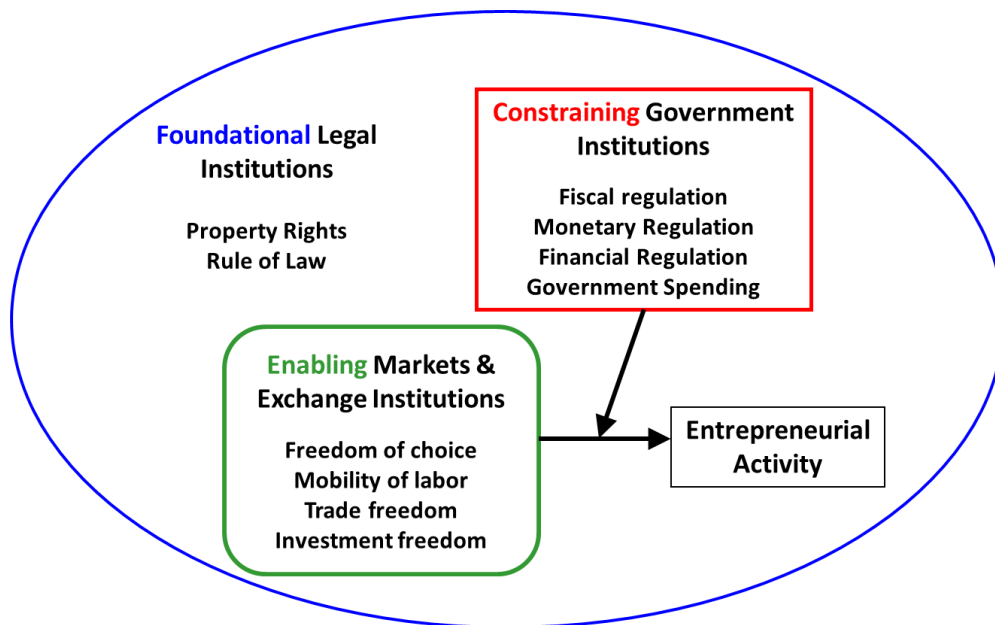


Figure 1: Model of Institutions and Entrepreneurship

Within the system people are free to choose how to use their facilities and property. The ability to choose within a market allows the flow of capital to productive endeavors of their own choosing. By choosing the entrepreneur embraces the uncertainty associated with any new productive enterprise, and bears the risk that accompanies such uncertainty (Knight, 1921, Schumpeter, 1934, Sobel et al., 2007). The mobility of labor is characteristic of well-functioning free markets that encourages entrepreneurship because it allows workers to move freely to better utilize their knowledge and skills contemplating the prospect of greater reward. Previous research demonstrates that economies with labor mobility restrictions, such as through strong labor union and workplace protections in the European Union, experience lower rates of entrepreneurship (Acs et al., 2005).

Working in concert with the choice and mobility is the ability to trade freely within and across markets and the freedom to invest. A markets and exchange environment also characterized by these freedoms can more easily encourage flows of financial capital to entrepreneurs. It is no coincidence that the greater freedom in small business finance in the U.S., through such crowdsourcing programs as Kickstarter, have led to dramatic increases in fledgling startup activity.

In contrast to the above, actions taken by government institutions have a constraining influence on entrepreneurs in a markets and exchange environment. North (2005) argues that "the institutional matrix imposes severe constraints on the choice set of entrepreneurs when they seek to innovate or...improve their economic positions." This is because institutions, as the "scaffolds" of beliefs and culture, are designed to ensure conformity and reduce uncertainty (North, 1990). Rules and regulations come into being through the efforts of incumbent interests with power at high levels of government. This translates into corporatism which encourages large firms to favor licensing, production regulations, etc., closing entry into markets of which they are a part (Schumpeter, 1942).

Contradictory findings in previous research may be better understood by considering the relationship between institutional theory and Austrian theory of individual entrepreneurship. Institutions serve to reduce information and uncertainty and thus to create value through a reduction in transactions costs (North, 1990). Together with their regulative nature (Scott, 2007), institutions tend to encourage conformity, constrain behavior, and limit the range of acceptable actions. Furthermore, the rules that are embodied by institutions are "devised in the interests of private well-being" (North, 1990: 48), which serve to protect incumbents. These ideas are in contrast to the nature of entrepreneurship, which is about the creative destruction of incumbents. Whereas institutions are macro-level economic entities, entrepreneurship occurs at the micro level of the individual. Confronting unknowable uncertainty (Knight, 1921) due to the fragmentation of knowledge (Hayek, 1945), value is created by entrepreneurs through their alertness to the possibility of rents through innovations and new combinations (Kirzner, 1979, Schumpeter, 1934). Entrepreneurship flourishes where greater information possibilities exist because of higher uncertainty, as the fragmentation of knowledge expands the range of possible actions (West, 2003).

Previous research has examined the state of institutions as predictors of entrepreneurship, but in this study we draw upon signaling theory to examine changes in institutions. Signaling theory (Spence, 1973) has been applied previously in the study of entrepreneurship and institutions (Levie and Autio, 2011), but here we differ in its application. In this conceptualization signaling is at issue when information is received that can result in new behavior (Connelly et al., 2011). Since institutions are stable, slow and difficult to change (Kasper et al., 2012, North, 1990), when they do change sufficiently a signal may be received by alert and prospective entrepreneurs. A changed institution produces new conditions and uncertainty, and opens up conduits for a wider breadth of acceptable behavior. Since uncertainty is the fountainhead of entrepreneurial opportunity (Knight, 1921), changes in institutions will thus have an impact on entrepreneurship.

Entrepreneurship can be impacted in two ways. Change can not only motivate people already interested in venturing to act entrepreneurially, but can also serve to interest people in becoming entrepreneurs in the first place. Thus we would expect to find that institutional changes will result in both higher levels of entrepreneurial activity and higher levels of interest in becoming an entrepreneur.

Hypothesis 1: Changes in institutions in the direction of greater freedom or less regulation will positively influence entrepreneurial activity.

Hypothesis 2: Changes in institutions in the direction of greater freedom or less regulation will positively influence on attitudes about entrepreneurship.

Because our model proposes that government institutions have a moderating effect on the relationship between markets and exchange institutions and entrepreneurial activity, it calls for testing interaction effects among the predictor variables. We therefore consider the concept of institutional confluence (Batjargal et al., 2013) as vital to a more comprehensive understanding of this dynamic. Confluence refers to mutual reinforcement that may occur among a multiplicity of institutions in a system. Institutions interact with each other in ways that can either amplify or reduce the propensity to engage in economic activity. As a body, the impact of government institutions on entrepreneurial activity and interest will be more pronounced if they are supportive of the enabling institutions that directly encourage such activity.

Hypothesis 3: Interactions between low levels of government regulation and high levels of markets and exchange institutions will positively influence entrepreneurial activity and attitudes.

METHOD

A longitudinal database was created from ten years of data (2002-2011) using the Index of Economic Freedom (IEF) (Heritage Foundation, 2009) and the Global Entrepreneurship Monitor (GEM) datasets (2012). Our complete sample for analysis is unbalanced across years and includes a total of 380 observations of country by year.

GEM collects a variety of measures of entrepreneurial activity. Because this study is in part motivated by inconsistent results in prior studies about country-level rates of entrepreneurship, we use similar measures of such activity to those used in previous research. We collected measures of the rate of *opportunity-based entrepreneurship* (OBE) and *necessity-based entrepreneurship* (NBE) for each country in each year. Each measure represents the number of adults per 100 in the population who are involved in a nascent firm or young firm reporting either opportunity or necessity as a major motive. *Entrepreneurial attitude* (Acs and Szerb, 2009) was measured using a scale variable created from seven GEM variables representing individuals' knowledge, awareness and intentions about opportunity (Cronbach alpha = 0.863). From the IEF we use 1) four of the ten sub-indices to serve as proxies for markets and exchange institutions (Business freedom, Labor freedom, Trade freedom, Investment freedom), 2) four of the sub-indices as proxies for government institutions (Government spending, Monetary freedom, Fiscal freedom, Financial freedom) and 3) two sub-indices as proxies for foundational institutions (Rule of law, Corruption freedom). Each of these indices and their subcomponents is fully described in IEF documentation (Heritage Foundation, 2009). Because we test interactions among IEF variables, the government institution regulatory variables are coded such that increases in these variables represent less regulation.

Consistent with the arguments above, we are interested in the effect on entrepreneurial behavior of uncertainty created by change. Therefore, both the entrepreneurial activity dependent variables and the IEF institutional predictor variables are operationalized as percentage changes relative to levels three years earlier. This period recognizes that institutional change takes time to recognize, and any consequent new entrepreneurial activity will then take time to materialize. Inconsistency of institutions is measured as the standard deviation of changes in these variables. Control variables are GDP per capita, change in GDP, and a scale variable combining property rights and rule of law in each country.

Because of the longitudinal nature of the data, panel data regression was employed. This overcomes a limitation of the majority of past studies, which have used pooled regression. The Hausman test was used to determine whether a random effects or fixed effects model is warranted for each analysis. Random effects models are more efficient, but if errors across countries are correlated with the predictors, then the fixed effects model is recommended and automatically uses a dummy variable for each country (Kennedy, 2008). Standard errors were clustered on the country-level identifier in order to avoid possible problems with heteroskedasticity and autocorrelation.

RESULTS

Panel data regression results are reported below in Table 2. In order to facilitate a clear view of the results, we show only the significant relationships in each test. Regressions for both opportunity based entrepreneurship (OBE), necessity based entrepreneurship (NBE), and entrepreneurial attitude were all highly significant ($p < .001$). The regressions each explain high levels of variance in the dependent variables within countries (OBE $R^2 = 0.33$, NBE $R^2 = 0.68$, Attitude $R^2 = 0.71$).

Hypothesis 1 finds partial support. Increases in trade freedom and freedom from government fiscal regulation lead to increases in OBE. However, increases in other freedoms are not predictive of OBE nor of NBE. Similarly, increases in trade freedom also enhance NBE. But contrary to the hypothesis, decreases in investment freedom are associated with higher levels of NBE.

Hypothesis 2 finds only partial support. Freedom from excessive government spending is associated with increases in favorable attitudes about entrepreneurship. But surprisingly, decreases in business freedom and increases in government monetary regulation are associated with increases in attitudes about entrepreneurship.

Hypothesis 3 also finds significant support. A variety of interactions between markets and exchange institutions and government regulatory institutions are significant predictors of all three dependent variables. Reading across Table 2 we observe that the following interactions are significant predictors of all three outcome: business freedom \times freedom from monetary regulation (positive), business

freedom x freedom from financial regulation (negative), and trade freedom x freedom from financial regulation (positive).

Dependent Variable:	Opportunity Based Entrepreneurship	Necessity Based Entrepreneurship	Entrepreneurial Attitude
Model:	Random Effects	Fixed Effects	Fixed Effects
Controls			
GDP Per Person	- 2.907	- 216.773 *	50.682
GDP Change	0.071	- 1.048	0.325
Legal Institutions	4.704 *	125.765 *	- 54.294 ****
Institutional Change			
Business Freedom	- 0.104	2.314	- 0.355 *
Labor Freedom	0.329	-3.874	0.237
Trade Freedom	0.952 *	4.772 **	- 0.440
Investment Freedom	- 0.188	-3.600 **	0.082
Government Spending	- 0.066	- 0.574	0.301 ***
Fiscal Regulation	0.722 *	1.909	- 0.188
Monetary Regulation	0.562	- 0.159	- 0.573 **
Financial Regulation	0.127	- 0.575	0.033
Moderating Interactions			
Bus x Govt	0.021 *	0.313 *	
Bus x Fiscal	- 0.082 ****	- 1.190 ***	
Bus x Monetary	0.080 ****	1.047 ***	0.103 ***
Bus x Financial	-0.033 **	- 0.301 **	- 0.086 ***
Labor x Financial		- 0.540 **	
Trade x Fiscal	0.041 **	0.876 **	
Trade x Monetary	- 0.088 ****	- 1.314 ***	
Trade x Financial	0.059 ***	0.677 ***	0.113 ****
Investment x Fiscal			0.122 ****
Investment x Monetary			- 0.091 **
Wald χ^2	245.18 ****		
F		28.74 ****	15.17 ****
R2 Within	0.334	0.682	0.711

* < .10, ** < .05, *** < .01, **** < .001

Table 2: Results of Panel Regression (unstandardized betas and significance reported)

DISCUSSION AND IMPLICATIONS

Most studies of cross-country rates of entrepreneurship have suffered from poor data availability. The first GEM data, with sampling in a limited number of countries, only began a few years ago, and not all of this data is in the public domain. Consequently, most previous research has been forced to rely upon single year small-n cross-sectional studies which can miss important temporal developments within countries. Or they have pooled multiple years' data in order to achieve greater statistical power but may have thus violated the independence conditions for OLS analyses. In the present study we have created and examined a multi-year, longitudinal database using panel data analysis techniques. This has allowed us to examine the within-country effects while controlling for the across-time effects

of the sample. We have also lagged the variables in order to more properly examine cause and effect relationships between institutional variables at an earlier date and current rates of entrepreneurship.

This research adds new dimensions to this stream of research. First, while previous research has largely relied on institutional theory as the context for study, in formulating this model we draw upon Austrian theory ideas about the implications of new information and uncertainty on entrepreneurial behavior. This leads us to the use of change among the independent institutional variables. Since institutions are believed to be relatively stable over time, low variance in predictor variables used in previous research may help explain their variety of findings and insignificant relationships.

Second, because we differentiate among type of institutions the model in this research has a more complex specification, with both direct and moderated effects at play. The specification of moderating variables, in particular, has significant implications for testing since it calls for analysis of interaction relationships. This has not previously been done in past research.

Third, recent work in institutional theory has suggested that confluence is an important conceptual element to be accounted for. Not only might institutions individually influence outcomes, but their relationships to other institutions may also be important. This is the first study to incorporate the concept of confluence into the examination of entrepreneurship rates across countries.

The first notable finding in this study is not completely evident in the data table. Because we ran panel data regression, we evaluated whether to use a fixed effects or random effects model. Random effects models are appropriate when one believes that differences across countries have some influence on the dependent variable (Greene, 2008). In this case we rejected the random effects model for regressions on NBE and entrepreneurial attitude, but not for OBE. This first suggests different underlying dynamics are at work in determining types of entrepreneurial activity. More specifically, it suggests that differences across countries must be accounted for to develop accurate predictions about OBE. One of the difficulties in employing random effects models is the omitted variable bias (Kennedy, 2008). Going forward researchers interested in understanding source predictors of OBE must develop a careful logic for country-level variables that are uncorrelated with the independent variables but correlated with OBE.

A second insight from this set of analyses is that many institutions are relatively stable over time. This determination may help explain why so many previous cross-sectional or pooled studies find non-significance for institutional variables, because the variance of predictors is low within country relative to the variance in rates of entrepreneurship.

This study uses a three year lag in accounting for influences of institutional change on entrepreneurial activity and attitudes. We selected a three year lag because, at face value, it would seem to account for the time it takes for entrepreneurs to notice institutional changes and then act up such new

information. Yet because of the slow pace of institutional change, future research might examine longer time lags or possibly use other time-related variables such as acceleration.

A significant influence of institutional variables appears to often come from the interactions of variables. Our analysis of the confluence concept uncovers interesting and potentially important qualifying relationships. This is a novel finding, and the implications may be quite important. The enabling markets and exchange environment is the province of free choice and independent behavior by individuals. Individual entrepreneurial behavior and transactions here are motivated by the breadth of possibilities presented by an information environment that is rich and fragmented. Institutions that represent this environment are informal because no one and no government can construct them. Often these types of institutions are referred to as "negative freedoms" because they do not have to be proactively provided to citizens by governments. While constraining government institutions do not have a direct effect on entrepreneurship, we find that many of these constraining institutions have a compelling effect on entrepreneurship through their interaction with the enabling institutions. This is what governments do through policy: they impact individual behavior.

In this study we have examined the interactions among summary measures of institutional variables. Each IEF factor is composed of several facets. Future research may focus on sub-index dimensions for further clarification. We note, for example, that government fiscal policy interacts with enabling institutional dimensions in different ways, both positive and negative. It may well be that sub-dimensions of the fiscal policy index are worth exploring further to better understand these differences. Unexpectedly, we also note that the interactions with monetary and financial institutions often have opposing effects. Why would more active financial or monetary policy have such contrasting impact? Evidence suggests that expansionary financial and monetary policy, such as we have recently witnessed in the U.S. and Europe, has not led to greater access to finance for small businesses or prospective entrepreneurs.

This finding presents an opportunity for future research. Here we have used a fairly simplistic operationalization of confluence, and there may be more sophisticated ways to define this concept. In addition, because we have discovered unbalanced relationships across strong/weak institutional regimes and within less/more sophisticated stages of country economic development, it will be important to develop more specified theoretical predictions about how confluence affects economic behavior and outcomes. This is an exciting agenda for the future.

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WHY PUT OFF UNTIL TOMORROW WHAT I CAN BUY TODAY? THE ROLE OF PROMOTIONS AND EMOTIONS IN IMPULSE BUYING BEHAVIOUR

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ABSTRACT

Impulse buying (IB) is a concept that has been explored dating back to the 1950s. Beatty and Ferrell (1998, p. 170) defined IB as "a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfil a specific buying task". Scholars have looked at what qualifies as impulse buying and seen it in different situations. In-Store Promotions is one of the techniques to attract customers to buy more or try a new product or service and cause impulse sales. Promotions have been shown to have a strong influence on customer's decision-making (Clover, 1950; Stern, 1962; Rook, 1987; Peck & Childers, 2006; Muruganantham & Bhakat, 2013).

Emotions play a significant role in this behaviour and have been acknowledged as a variable that powerfully affects buying behaviour, including impulse purchasing (Rook, 1987). A model entailing promotions and emotions impact in IB is developed. By using a quantitative approach, a survey will be carried out to test the proposed model. In this recessionary period, consumers care for the 'price' factor and look for goods that are 'value for money'. This research may contribute to understanding consumers motivations for impulse buying, precisely the role of promotions and emotions. In managerial terms, this knowledge may help retailers to elicit impulse buying behaviour. Retailers may have a more profound understanding the most effective promotional in-store tools that are perceived by consumers as a significant motive for their impulse purchasing decisions.

Keywords: Consumer Behaviour, Emotions, Impulse Buying Behaviour, In-store Promotions, Retailers.

INTRODUCTION

Every time consumers are in the position to take a decision, they have two alternatives: either they act rationally after collecting much information, consider all the alternatives available and then make the decision, or they can decide without thinking and on the spot.

Consumer behaviour is the science that aims to understand how, why, when and where the consumer buys or does not buy a product. It is a field that has emerged after the second world war, and throughout years, researchers tried to understand how consumers behaved and tried to frame this behaviour into different models. Those models were firstly based on the rational view that explains how consumer reach an action in a rationality frame. Those models have been known as the Grand Models.

However, it has been found that sometimes consumers behave in a manner that those models cannot explain, for example, when they buy products without previous deliberation, i.e. Impulse buying behaviour. During the last years, researchers have tried hard to tell what is impulse buying behaviour and when and how this behaviour occurs, as well as identifying variables which influence IB. Those variables are categorised as internal and external variables. In this study, we consider emotions and promotions.

Promotions in the retail environment are viewed as an influence which can easily attract consumers to purchase without thinking, as the consumer may feel compelled to buy immediately.

The retail industry is growing very fast during the last years, with innovations and new techniques aimed to attract consumers, but do consumers indeed skip their rationality and just buy in order not to miss an offer?

Obviously, emotions also play an important role as this concerns individual self-control. Therefore, marketers put consumers in a position where they have to purchase the spot or regret losing a good deal.

CONCEPTUAL BACKGROUND

At the core of the study of marketing, there are significant insights about how consumers behave without a good understanding of consumer behaviour. Consumer behaviour grew after the Second World War (Applebaum, 1950; Clover, 1950; West, 1951). Following significant changes in the marketplace which led to a new paradigm aiming at concentrating more on what consumers want instead of what to produce. The transformation of the marketing concept from the selling concept to consumer-oriented marketing led to the development of buyer behaviour as an independent discipline in the marketing science. A significant catalytic influence in its emergence was the formation of the Association for Consumer Research in 1969 which contributed to the development of the literature.

The body of knowledge underlying consumers' decisions has been studied from a rational view. The choice is made after fully considering the various options from alternatives (Tversky & Kahneman, 2000, p. 1) or from finding the most critical needs which need to be fulfilled first. However, in some cases, consumers violate these rules of rationality. In this case, customers take decisions without careful consideration of the available alternatives, with insufficient information about the product of interest, or without prior intention to purchase (Tversky & Kahneman, 2000, p.1). Also, without considering their post-purchase evaluation or cognitive dissonance after the behaviour, one such example is impulse buying behaviour.

In the 1980s, researchers started to inquiry the rationality of many consumer actions (Erasmus, Boshoff, et al. 2001). It was found that consumers commonly engaged in non-conscious behaviours that might not be well modelled through a rational information processing approach (Bozinoff, 1982; Erasmus and Boshoff et al., 2001). Other researchers have found consumer behaviour in certain circumstances disorganised, confused or opportunistic (Erasmus, Boshoff, et al. 2001), and while such explanations may deny some rationality that may be concealed even to the performer, they unquestionably do not follow the well-structured, and the inflexible traditional model proposed.

Impulse buying behaviour is a significant phenomenon as not all of our purchase decisions are based on a rational view, and this explains why marketing researchers are very keen to understand why this usually happens and what is the primary definition of this kind of behaviour.

Impulse buying behaviour has been studied from two main perspectives; psychology, and consumer behaviour. The psychology concept of Impulse buying (IB) has started attracting attention in academia in the 1920s (Ünsalan, 2016); medical and progressive psychologists (Gerbing, Ahadi & Patton, 1987) criminologists also have studied this behaviour (Easting, Eysenck, et al., 1985).

The process of impulse buying behaviour is unlike the usual buying behaviour process, as there is no information search nor alternative evaluation which are both essential phases of the typical buying behaviour decision. The consumer is triggered by stimuli which raise the impulsive urge to buy immediately without bearing in mind any efforts for searching information regarding the product and without any evaluation of the alternative products that might be available. So, consumers' impulse buying decision begins with the browsing, followed by desire and entering the purchase and the post-purchase stages. Hoch and Loewenstein (1991) mentioned that people experience the urge to consume on impulse, not the product, they also suggested that buying may generate more buying by the loss of self-control.

Piron (1991) defined impulse buying based on four assumptions the first one is that impulse buying are unplanned, the second one, it is decided "on the spot". Then comes the third one, it stems

from a reaction to a stimulus and finally, involve either a cognitive reaction, or an emotional reaction, or both.

Stern (1962) developed The Impulse Buying Theory, which is different from the earlier approaches, in the way that is based on the non-rational actions. According to Stern (1962), there are four types of unplanned purchases (Stern 1962, p. 59):

1-Pure impulse is a novelty or escapes purchase which breaks a regular buying pattern.

2-Reminder impulse happens when a customer sees an item or remembers an ad or other notice and retrieves that the stock at home is out.

3-Suggestion impulse occurs when a customer sees a product for the first time and visualises a need for it.

4-Planned impulse happens when the buyer makes specific purchase decisions based on price specials and offers.

The Pure impulse buying refers to purchase on impulse whenever the buying process is different from the standard buying behaviour planned. It begins by an emotional demand during the transaction, and it is distinct from the reminder impulse which happens when the consumer remembers the need for an item from a recall or an advertisement, as in this case, the customer already knows the product's features and has bought it previously. Sometimes, customers use store layout as an external memory aid (Rook and Hoch, 1985, p. 23). Stern (1962, p. 60) remarked that customers increasingly use the store as a substitute for a shopping list. The suggestion impulse happens when the consumer sees a product he never used before and realises a need for it. According to Amos et al. (2014), the reason behind this type of classification is that the unplanned purchase can happen because the consumer needed the product but did not place the product on a shopping list.

Stern (1962) held on to the idea of impulse buying behaviour that is driven by the exposure to external and internal stimuli and characterised by a substantial difference in its process from the traditional decision making. Stern (1962) acknowledges that the consumer can still think about his or her buying decision in some situations, and may end it with a rational choice. However, the truth is that Stern (1962) by his contribution to the definition of impulse buying behaviour have explained how the consumer may break the usual buying pattern which cannot be described by the previous rational decision rules.

Consumer behaviour research in impulse buying began at the end of the 1940s with the DuPont Consumer Buying Habits Studies (Ünsalan, 2016); the philosophical framework of impulse behaviour by Rook (1987), Piron (1991) and Clover in 1950. Moreover, many studies which were supported by Point-of-Purchase Advertising Institute concerning to the impulse buying characteristic that has been studied widely (Stern, 1962; Cobb & Hoyer, 1986; Piron, 1991; Rook, 1987).

As we see from the previous paragraph, the different kinds of consumer behaviour require different strategies from the marketer. The level of involvement with the products may also vary during impulse buying when compared to the regular buying. The form of low-involvement decision leads to impulse buying or purchasing with little or no planning (Michael et al., 2010). Youn and Faber (2000) pointed out that impulse buying may originate from consumer traits such as impulsiveness and optimum stimulation level, shopping enjoyment, or lack of self-control. Shen and Khalifa (2012) observed that cognition of the consumer moderates the relationship among buying impulse and the actual impulsive behaviour.

Factors Affecting IB

Previous studies have looked at the factors that influence impulse buying behaviour and divided it into two main groups: internal and external factors. The internal factors can refer to individual elements which include social, psychological, demographic, personality, learning, emotions, perception, lifestyle, and cultural factors. The external factors relate to external stimuli which include marketing mix; product, promotion, price, place, and situational, economic, and environmental factors. We focus on sales promotions as marketing activities typically associated with a specific time frame, place or customer segments, which aim to attract customers attention and encourage a direct reaction from the consumer side or marketing intermediaries, through the offer of additional benefits (Peattie & Peattie, 1994). Sales promotion have been studied as one of the essential techniques influencing impulse buying (Clover, 1950; Stern, 1962; Rook, 1987; Peck & Childers, 2006; Muruganantham & Bhakat, 2013).

In-Store Promotions

Sales promotions are the tools that are used by the retailers or manufacturers to motivate consumers to buy more. One of the sales promotion tools' benefits is that they can draw customers attention to the product and purchase opportunities. Many types of sales promotions instruments and strategies are used by the marketers so that they can become the consumers' first choice and boost their sales (Mughal et al., 2014).

In-Store promotions are the lifeblood of retailing that allow customers to gain savings and get higher quality brands. Also, it is one of the techniques to attract consumers to buy more or try a new product or service and cause impulse sales.

Manufacturers and retailers use the categorisation of monetary and nonmonetary promotions (Quelch, 1989). Monetary promotion is a price discount or an extra free amount of the same product mostly used by marketers (Darke and Chung 2005; Lee 2000; Nunes and Park 2003; Yi and Yoo 2011). Non-Monetary promotions are non-price incentives including gifts, contests, and samples (Delgado-Ballester and Palazon 2009; Hardesty and Bearden 2003; Yoo et al. 2000).

Mendez et al. (2015) confirmed that there is a difference between the monetary and nonmonetary promotions and that there seems to be a higher preference for monetary promotions over nonmonetary promotions. Consumers who are more price sensitive will respond to monetary promotions due to the utilitarian benefits that are offered by the promotions (Yi & Yoo, 2011). According to Alvarez and Casielles (2005) promotions that show a reduction in the price are claimed to be the most effective strategy that can increase the number of goods purchased by consumers. These monetary promotions are successful because they reduce the perceived price of a product in the mind of the consumer. Consumers who are more apt to purchase items for pleasure will respond to nonmonetary promotions because they are perceived as gains.

Mendez et al. (2015) studied the influence of different kinds of monetary and nonmonetary promotions on brand loyalty and their connection to product involvement and reported the impact on long-term effects, like the type of risk associated with a service or product and brand loyalty. The results show that both monetary and nonmonetary promotions can enhance brand loyalty, conflicting to findings of previous studies.

While the term unplanned purchase may imply a lack of rationality or alternative evaluation, this is not necessarily true; for example, the decision to buy one product rather than a similar one for another brand because it is on sale is probably logical. Promotional activities aim to encourage target customers by prompting an immediate response to buy the product by offering value incentives (Belch & Belch, 2007; Ouwersloot & Duncan, 2008). Stern (1962) discovered that goods bought on impulse are usually cheaper. Planned impulse purchasing happens when the shopper makes specific purchase decisions based on price specials and coupon offers (Stern, 1962) this seems typical of planned impulse purchases.

At the same time, Tendai and Crispen (2009) have classified the factors with promotional and economic effects, such as the discount and free samples as determinants of impulsive buying behaviour. Also, a research done by Ndubisi and Moi (2005) on the influence of sales promotional tools, found that price discounts, free samples, bonus packs, and in-store display are associated with product trial which determines repurchase behaviour and also mediates in the relationship between sales promotions and repurchase. Point-of-sales communication tools and promotional activities (temporary price reductions, coupons, sampling) serve as marketing stimuli and assist retailers in stimulating consumers' impulse buying behaviour (Duarte et al., 2013, p.1238).

Emotions

According to Fehr & Russell (1984), it is difficult to define emotions; everyone knows what emotion is until asked to give a definition.

Emotions have been acknowledged as a variable that powerfully affects buying behaviour including impulse purchasing (Rook, 1987). Rook and Gardner (1993) found while pleasurable mood states, such as excitement, encouraged impulse buying, consumers were also likely to impulse buy during negative mood states, such as sadness, to improve their mood. However, this is not without consent. Mathai& Haridas (2014) stated that there is a need to take into consideration the emotional aspect of consumers during impulse purchase.

It was suggested that there are six basic emotions in the human lifetime: sadness, fear, happiness, disgust, anger and surprise (Eckman, 1972). Then, this notion was expanded to include other primary emotions as well as pride, excitement, contempt, amusement, embarrassment, shame and satisfaction (Eckman, 1999).

Emotions have been known to be linked to several aspects. Firstly, the cognition which influences and is influenced by thinking, the physiological which related to heart rate and hormones, the expressive which relates to facial expressions and the motivation which relates to goals and drives. Finally, the feeling which refers to the conscious awareness of being in an emotional state (Preston and De Waal, 2002; Liu et al., 2009).

The causes of emotions could be understood from the definition proposed by Bagozzi et al. (1999). He has defined feelings as mental states of readiness that arise from cognitive appraisals of events or one's thoughts.

When Piron (1991), proposed the definition of impulse buying, he mentioned that there exist four criteria in this behaviour which are; unplanned purchase, exposure to a stimulus, on-the-spot decision then emotional and cognitive reactions. Recent research on impulse buying (e.g. Verplanken et al., 2005) suggests that people engage in quick buying mostly due to affective reasons. Therefore, it is essential to understand the ability of a consumer to (a) differentiate between emotions; (b) use emotions to guide thoughts and behaviour.

People want to feel good, and when people are upset, the goal of exploring to be better will be the main of their central actions. Thus, in the position when the consumer is confused between saving money or spending it for the aim of feeling good, emotional distress may shift the balance in favour of making the purchase (Baumeister et al. 1994).

According to the consumer behaviour theories, people who are emotionally upset are more likely to have prudent self-control aside hoping that purchasing goods or services will make them feel better. This conclusion fits well with observations by Mick (1996; Mick and DeMoss, 1990) that people sometimes give themselves gifts to make themselves feel better, and they do this mainly when they consciously think to do so.

Piron (1991) discussed that impulse buying is based on emotional and cognitive reactions. Also, the idea of an emotional and cognitive response coincides with Rook (1987) claiming that the impulse to buy is hedonically complex and may stimulate emotional conflict. Piron (1991) agrees with Rook (1987) that, there exist a lot of consumers' thoughts and emotions experienced during impulse purchasing situations. In other words, when the consumer purchases a product there is an emotional feeling behind it. It leaves the consumer feeling an array of emotions, ranging from good to sad, guilty or excitement.

Emotional reasons are a strong feeling of must-have desire rather than a rational need for a product or service. The negative emotions are an essential activation as they put the consumer in the position of trying to escape the anger and sadness and reach pleasure through a spending activity or to celebrate a good mood or occasion by shopping with positive emotion. Some consumers seem to be more emotional than others and, emotions are uncontrolled feelings that affect behaviour (Bagozzi, Gopinath & Nyer, 1999).

Mehrabian and Russell's (1974) theory anticipated that Pleasure Arousal Dominance (PAD) is the emotional dimensions that define people's state of feeling. Emotional responses shape the impact of the circumstances of actions. Therefore, any events primarily create an emotional reaction, that leads to a behavioural response. They suggested that any location will generate an emotional response in the consumer that can be categorised regarding the PAD dimensions. The pleasure-displeasure refers to the point of time in which the customer feels pleased, kind, content, or gratified in the situation ranging from extreme pain or unhappiness to extreme happiness and used adjectives such as happy-unhappy, pleased-annoyed, and satisfied-unsatisfied to define a person's level of pleasure. The arousal-non-arousal refers to whether the consumer feels aware or energetic in the situation. Arousal is conceived as a mental activity describing the state of feeling along with single dimension ranging from sleep to nervous excitement and linked to adjectives such as stimulated-relaxed, excited-calm, and wide awake-sleepy to define arousal. The dominance-submissiveness refers to the degree to which the consumer feels free to act in the situation and related to feelings of control and the extent to which individual feels restricted in his behaviour.

In summary, most of the differences may be since, as opposed to unplanned purchases, planned purchasers' take the decisions to buy before being at the point-of-purchase. It follows that the emotional reactions experienced during the decision-making process by unplanned purchases, characterised by a "sudden and imperative desire to purchase," (Rook and Hock, 1985 and Rook, 1987) originate with a "feeling of helplessness". These two feelings may lead to impulse purchases to try and blame sources besides themselves.

This Research purposes to answer the following research questions:

Do promotions impact the impulse buying behaviour?

Do emotions affect impulse buying behaviour?

A model has been proposed based on the previous literature review. The conceptual model (Figure 1) presents the relation of the promotions and emotions on consumers impulse buying behaviour.

Where the external and internal factors have affected and triggered customers for the impulse purchase, every element may have a strong influence on the impulse buying decision. The understanding of the impulse buying behaviour phenomena in this research will rely on the promotions, mainly on the monetary and non-monetary promotions; the internal element will depend on the emotions, primarily the negative feelings like anger and sadness and the positive feelings like happiness and excitement.

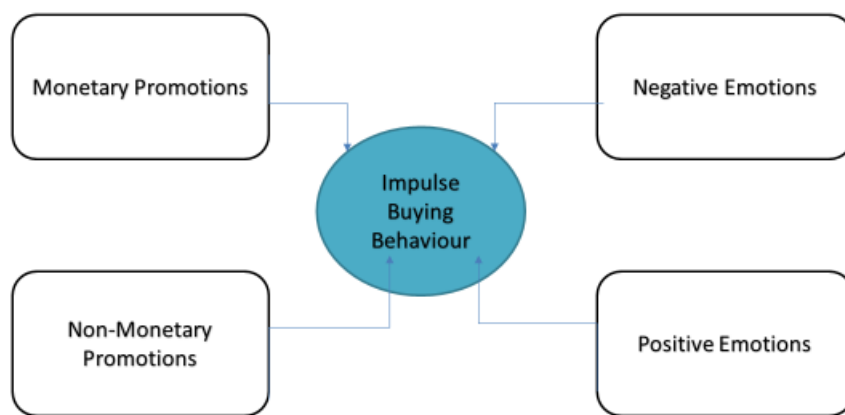


Figure 1: The proposed Model

A quantitative study is underway done to test this model.

CONCLUSION

In conclusion, the human behaviour is very complicated but trying to understand it will help marketers to develop the most suitable strategy to attract consumers and engage them in the buying decision.

Also, consumers need to understand why they bought on impulse, as sometimes consumers can enter into a cognitive dissonance feeling and dissatisfaction state due to the lack of rationality behind their decisions.

This study will help to identify factors related to impulse buying of the consumer in a retail environment. According to previous literature, internal and external factors influence impulsive buying. For this study, internal factors include the mood and emotions, demographic factors like age, gender and the occupation will be reviewed as well. External factors include in-store promotions.

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STAKEHOLDER ANALYSIS OF THE FOOTBALL INDUSTRY IN CYPRUS

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ABSTRACT

The purpose of this paper is to theoretically identify the main stakeholders of the football industry and to define and delineate their typology, prioritization and interrelationships, along specific attributes; drawing in parallel explicit theoretical and practical conclusions towards scholarly advancement and managerial implementation. The research focuses on the case of Cyprus, a small European (EU) island-state, whose football-specific attributes, in all its business, sporting and social contexts make it a rather unique and valuable case study. Methodologically, the research relies on an extensive theoretical study and the application of Mitchell, Agle and Wood (1997) typology of stakeholders' attributes and salience.

Keywords: football industry, managers, attention, stakeholder theory, stakeholder salience, attributes, typology, stakeholder identification, prioritization

INTRODUCTION

Theoretical research context

Football is a global sport having a direct impact on every aspect of our lives. It is without any doubt the most popular sport on the planet which has become increasingly commercial (Chadwick and Hamil, 2010). The football industry is becoming more affluent and powerful every day, operating in a dynamic corporate environment that deals with a variety of stakeholders (Morrow, 2003).

For the sport to operate smoothly and to improve performance and efficiency, these stakeholders need to be identified, analysed and prioritized, to reveal the attention volume required by managers (Senaux, 2008).

Industry research context – the football paradigm of Cyprus

Cyprus is a small European (EU) island-state in the Mediterranean, with a population of approximately one million. And yet the specific attributes of its football industry, in all its business, sporting and social contexts, make it a rather unique and valuable case study for football internationally.

Football in Cyprus managed to grow “big in terms of both numbers as well as the impact it has on public life, becoming a social phenomenon in all levels of the society and an essential part of its culture”. Although it does not have the international interest and fame or the big sponsors, it is a fact

that Cyprus is a football-loving nation in terms of attendance and media coverage, having the highest attendance rate in Europe in relation to its population (Kartakoullis, Kriemadis and Pouloukas, 2009).

Cyprus, in the recent years, proudly managed to have several teams reaching the group stage of the two major UEFA competitions. The peak was the participation in the quarterfinals of the UEFA Champions League in 2012, which is considered by UEFA as the biggest success ever, considering the size and capacity of the industry.

Purpose of the study

The purpose of this paper is to identify the main stakeholders of the football industry in Cyprus, delineate their absolute and relative value and interrelationships, along specific attributes, and draw explicit theoretical and practical conclusions towards scholarly advancement and managerial implementation.

Methodologically, the research relies on an extensive theoretical study and the application of Mitchell, Agle and Wood (1997) typology of stakeholders' attributes and salience.

The findings of this study can provide invaluable insight into the stakeholder analysis process for small-size football industries and can be used as a pilot model to identify and classify their stakeholders.

THEORETICAL FRAMEWORK

Stakeholder theory

Freeman (2010) describes stakeholders as any group or individual that can affect or can be affected by the organisation's actions, objectives and policies. As outlined by Freeman, Harrison and Wicks (2007), the theory is linked to two core questions, "*what the firm's purpose is*" and "*what the management's responsibility towards the stakeholders is*". These questions allow managers to understand the different values they create and how they are interrelated to the various stakeholders. At the same time, the questions specify the appropriate kind of relationship between the business and the stakeholders and determine the way managers should operate to satisfy their needs (Freeman, 1994; Huml et al., 2018).

Relationships and how they shift depending on the industry context is one of the main elements and at the same time, a great concern in this theory (Freeman et al., 2004). Sharing the same values and interests with the stakeholders is like putting together a partnership where at the end every party wins. Managing to have a reliable and smooth relationship is what pushes the organisation forward, helping everyone perform in a more efficient and effective way (Freeman et al., 2010).

Stakeholder salience model - "Who and what counts"

Mitchell, Agle and Wood (1997) propose a model based on the stakeholders' influence on the organisation, the legitimacy of their relationship with the organisation and the urgency of their claim on the organisation. Influence is defined as the capacity of power towards the organisation's decisions, legitimacy as "the perception that the actions of any entity are desirable and appropriate within some social norms, values and beliefs" and finally, urgency as the degree to which stakeholders claim immediate attention.

To better understand the stakeholder salience and how the different attributes reflect on each category, they summarise both the stakeholder's types and their attributes (Miles, 2017) and determine the priority and attention that managers should give to each stakeholder (Table 1).

	Salience	Typology	Attributes		
			Power	Legitimacy	Urgency
Latent	Low salience	Dormant	Yes	No	No
	Minimum attention Passive stakeholders Monitor	Discretionary	No	Yes	No
		Demanding	No	No	Yes
Expectant	Moderate salience	Dominant	Yes	Yes	No
	High response Active stakeholders Keep satisfied	Dangerous	Yes	No	Yes
		Dependent	No	Yes	Yes
	High salience - Manage closely	Definitive	Yes	Yes	Yes
	Considered as potential stakeholders	Nonstakeholder	No	No	No

Table 1. Stakeholder salience summary (Adopted from Mitchell, Agle and Wood, 1997)

Focusing on the salience model, the paper will apply this typology on the football industry of Cyprus, to identify the stakeholders' significance and importance in the decision-making process, prioritize them and reveal how much attention volume is needed by managers.

Managerial status

Specifying the managerial and legal status of football in Cyprus will help us define the relationship with the various stakeholders. Decisions are taken mainly by the board of directors, who has direct control on the operations. They are accountable to either their members or the shareholders (depending on the club's legal entity). Normally they are individuals having the social power and capacity to contribute to their club. This paper recognizes that the decision-making power lies mainly on them and so is the responsibility to give the equivalent attention to the stakeholders according to the attributes they possess.

Stakeholder typology and attributes for the football industry of Cyprus

Most studies in this field tend to focus on stakeholders as general categories ignoring the various groups that exist as diverse entities, holding different attributes. This paper will examine the industry under the empirical reality and the broad stakeholder analysis to identify the main stakeholders in a wider concept.

Authorities

Authorities involve every governmental organisation and legally appointed functional committee, responsible for forming sports policies and laws, allocating grants for developing infrastructure, designing programs for the development of sports, establishing youth programmes, nurturing talents, and providing a framework for the well-being, public health and education (Beech and Chadwick, 2004).

The Ministry of Education and Culture supports and executes the strategic policies of the government regarding sports, through Cyprus Sports Organisation (CSO), a semi-government organisation, whose board is appointed by the government following the recommendations of all political parties. CSO supports football with direct subsidies of €3.65 million euros for grassroots and youth development programmes, international participation, football stadiums maintenance, etc. (Cyprus Sports Organisation, 2017).

The Ministry of Justice and Public Order has the responsibility to provide a safe and secure environment to the supporters and maintain public order. It is actively involved in every football event and together with the clubs, is obliged to prepare and execute safety plans on a regular basis (Yiapanas, 2016). The annual policing cost (€1 million euros for 2016) is covered by the government and their relationship is grounded on constant communication, internal management values and mutual trust.

Football governing and regulatory bodies

Concentrating on Federation Internationale de Football (FIFA) and Union of European Football Associations (UEFA), one can easily identify that their mission is to develop football and create an attractive competition for their member associations (Holt, 2007). Even though FIFA's direct involvement with clubs is minimum, by default there is legitimate relationship.

UEFA, on the other hand, as the umbrella body of European football, has a strong direct relationship with clubs. The launch of the Financial Fair Play (FFP) assessment scheme is forcing every club to evidence that they do not have overdue payments towards their players, staff, other clubs and the government (UEFA, 2015). Every club is tightly monitored and individually assessed and those not in line with the FFP regulations receive restrictions and sanctions by UEFA (Dimitropoulos, Leventis and Dedoulis, 2016).

In addition to the above, the great volume of money UEFA is paying to the clubs participating in the two major competitions, Champions League (minimum €20 million euros for 2019) and Europa League (minimum €5 million euros for 2019), attracts the attention of every club in Cyprus.

The same stands for the Cyprus Football Association (CFA), being the governing body of football in Cyprus. The CFA is responsible for developing football in Cyprus, ruling and organising an attractive competition and keeping its club members in line with UEFA regulations. As clubs are under close supervision due to their high debts towards the government (taxes and social insurance), CFA reached an agreement with the government for a gradual payoff.

Football clubs

Most clubs are characterized by management culture intensity focusing on the logic of success as main their objective, pushing financial performance as a secondary aim (Ogbonna and Harris, 2014). The same applies in Cyprus, where all clubs are facing serious financial problems, in the form of millions of euros worth of debts.

Clubs are formed by shareholders or club members whose main responsibility is the election of the board members. The way shares are spread over a wide range of shareholders eliminates the possibility of monopoly and voting power to only a few people. For those clubs incorporated as public companies, a legal relationship exists with the parent club. The company is entitled to use the name and the emblem of the club over a fixed annual fee.

Managers basically rely on coaching and technical staff as well as football players to achieve the club's objectives. The swift development and professionalism of football forces clubs to recruit qualified and experienced staff to satisfy the team's requirements (Anagnostopoulos, 2011). The staff undertake a variety of duties and need to be constantly informed about any possible aspect that might have an impact on the team's performance. Their interests are directly interwoven with the board's expectations.

One of the main characteristics of football in Cyprus is the large volume of non-Cypriot players listed in every club. Clubs spend millions of euros to buy players from all over the world, treating them as club assets since each one of them has a unique sale value, mainly based on their performance, experience and reputation (Majewski, 2016). Managers need to pay the utmost attention, not only because they must satisfy their needs but also to control diversity and protect the club's investment.

Football grounds owners

Most clubs in Cyprus do not own a football ground and are therefore required to rent facilities from ground owners. Currently, eight grounds accommodate twelve clubs but only three are owned by football clubs (UEFA, 2018). Clubs using rented grounds need to cover the expenses, including the

rental fee, on match-days. On average, the total annual cost for ground usage is approximately €650,000 euros per club and most clubs have considerable rolling debts towards the venue owners. Currently the clubs' debts reach the total amount of €3.7 million euros. Ground owners resolve this issue by not conceding to clubs using their ground as home venue until they get paid.

Supporters

Supporters are the club's customers and are considered one of the basic value factors of football. Clubs develop a strong two-way relationship built on trust, loyalty, support and commitment. Shuv-Ami, Vrontis and Thrassou (2017) classify supporters based on a love and respect scale. They classify them as loyal fans - those who unconditionally support their team, as fans - those who support their team only if they are doing well, and as spectators - those who just watch football for the love of the game.

Loyal fans and fans are supportive and expressive towards their team. Engagement is what influences fans to attend football games (Zagnoli and Radicchi, 2010). Sponsors invest on their love and respect towards their club and club managers tend to hinge on them to gain value and money. Cyprus has a total yearly attendance of half a million supporters.

Spectators, since they have no direct relationship with the club, are classified as nonstakeholders, but managers need to consider them as potential stakeholders as they can easily possess an attribute and change into fans or even loyal fans.

Another category exists, the core fans also known as fanatics. These supporters are like loyal fans but exhibit different characteristics, revealing a violent and dangerous behaviour, having great power and control over the managers.

Media and sponsors

Media and sports are bound together in a complex relationship. Media invest in football and clubs rely on them for increasing their financial resources. Sports media and sports journalism is a rising sector in Cyprus. Every first division game is televised and currently three main broadcasters hold the TV-rights in Cyprus. The total annual income for the period 2016 - 2019 is €14 million euros, which considering the capacity and size of football in Cyprus, is considered extremely high. Most clubs depend on TV revenue, which amounts to 20% - 25% of their annual income (UEFA, 2018).

Sponsors consider football an exclusive powerful vehicle to reach an extensive audience and a new market in order to create brand awareness, build an image and increase their sales and value (Kartakoullis et al., 2013). They invest in football through exclusive activities, seeking engagement, insights and innovation. According to Thrassou et al. (2012), the product itself may constitute the relationship basis between the sponsor and supporters, who become emotionally devoted and linked to these products because of the relationship with their club.

Clubs, on the other hand, grasp this opportunity to strategically analyse potential sponsors and select those who are financially strong to firstly create value for their club (Vrontis et al., 2014) and secondly, to strengthen their financial position.

Regarding the examined industry, it is estimated by The European Club Footballing Landscape that 10% of the clubs' revenues come from sponsors and commercial contracts (UEFA, 2018).

RESEARCH FINDINGS

Applying the extensive theoretical study and Mitchell, Agle and Wood (1997) typology of stakeholders' attributes and salience, the main actors of the football industry in Cyprus are identified and classified based on the influence they have on the decision-making process. Other stakeholders such as licencing and safety committees, municipalities, competitors, various associations (i.e. football players, referees, coaches, etc.) and suppliers have not been analysed in this paper although they possess different attributes and they may have an impact on the decision-making procedure.

Research findings evidence that a variety of stakeholders exists in the examined industry, holding different attributes and showing significant differences. Building upon this typology and focusing on the results (Table 2), the paper allows predictions regarding managerial behaviour with respect to each stakeholder class and what this means to managers.

Stakeholders	Typology	Attributes		
		Power	Legitimacy	Urgency
Authorities				
Ministry of Education and Culture	Discretionary	No	Yes	No
Cyprus Sports Organisation - CSO	Discretionary	No	Yes	No
Ministry of Justice and Public Order	Dependent	No	Yes	Yes
Football governing and regulatory bodies				
Federation Internationale de Football - FIFA	Discretionary	No	Yes	No
Union of European Football Associations - UEFA	Definitive	Yes	Yes	Yes
Cyprus Football Association - CFA	Definitive	Yes	Yes	Yes
Football clubs				
Shareholders Members Parent club	Dependent	No	Yes	Yes
Coaches and technical staff	Dependent	No	Yes	Yes
Football players	Definitive	Yes	Yes	Yes
Football grounds				
Grounds owners	Dominant	Yes	Yes	No
Supporters				
Loyal fans and fans	Dependent	No	Yes	Yes
Spectators	Nonstakeholder	No	No	No
Fanatics - Ultras	Definitive	Yes	Yes	Yes

Media and sponsors				
Main broadcasters and TV non-rights holders	Dangerous	Yes	No	Yes
Written press (Newspapers, magazines and websites)	Dangerous	Yes	No	Yes
Radio Stations	Dangerous	Yes	No	Yes
Main sponsors Official sponsors and partners	Dominant	Yes	Yes	No

Table 2. Stakeholder typology and attributes of the football industry in Cyprus

Furthermore, the results specify how and under what circumstances managers should respond to the various types of stakeholders. Whether this response should be high or low depends on the salience of the stakeholders which helps managers stipulate the volume of attention they must give to every actor to satisfy their needs.

Prioritization of the stakeholders

Harrison, Bosse and Phillips (2010) suggest that power should be the first criterion when prioritizing stakeholders, followed by legitimacy. Applying this concept on this research findings, the stakeholders of the examined industry can be mapped, classified and presented as a grid (Figure 1) in relation to the attributes they hold.

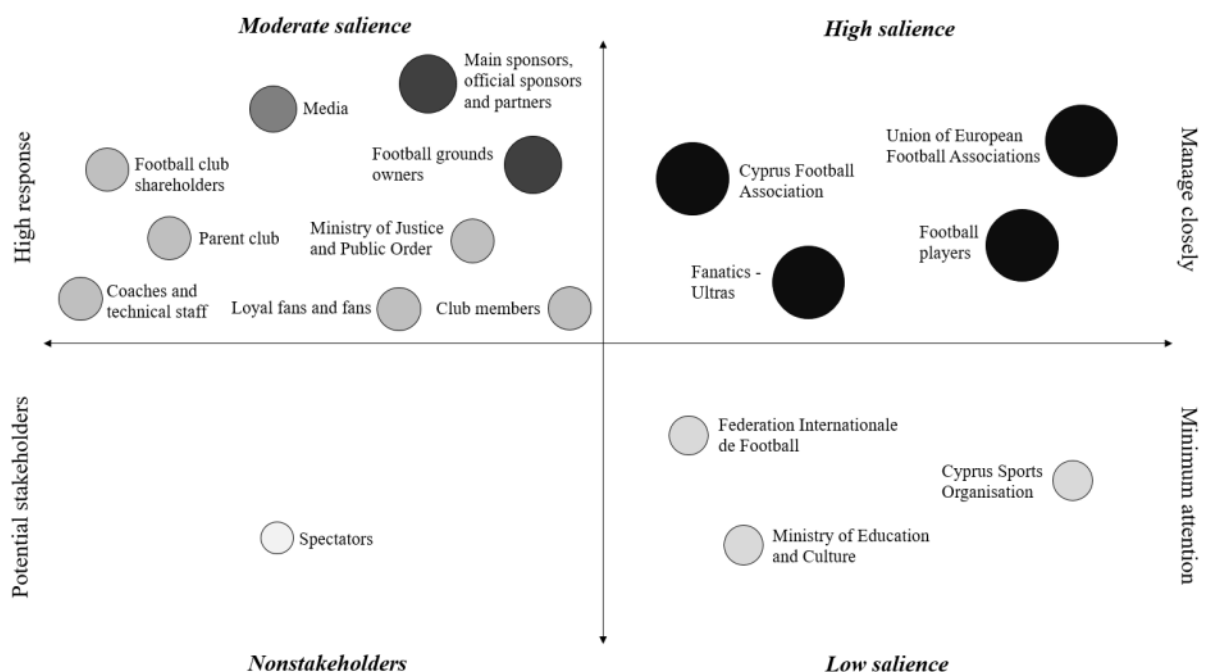


Figure 1. Stakeholder's prioritization grid of the football industry in Cyprus

The high salience field of the grid includes the definitive stakeholders also considered as active stakeholders. Based on the findings of the research, UEFA, the Association, the football players and the

fanatics are mapped in this field. For the first three it is quite understandable to be positioned in this field since they are the main football actors, but the fanatic's presence is a unique industry finding, mainly due to the high power they display over managers. Managers should give priority and maximum attention to these stakeholders.

The moderate salience field includes stakeholders holding dominant, dangerous and dependent attributes. The research shows that sponsors and ground owners dominate this field that is also hosting the media, the club shareholders and members, the loyal fans and the authorities. It seems that this field accommodates the most stakeholders. It is worth highlighting the fact that media are the only stakeholders classified as dangerous. Moderate salience stakeholders need to be kept satisfied and managers should immediately respond to their needs.

The low salience field includes stakeholders such as authorities possessing discretionary attributes with legitimacy interest. These stakeholders are considered passive and minimum attention is required.

Managers need to understand that any stakeholder can easily gain a second or a third attribute, become more salient and therefore the priority and attention will immediately rise.

CONCLUSION, IMPLICATIONS AND FUTURE RESEARCH

A multifaceted industry like football is becoming more affluent and powerful every day, operating in a dynamic and complex environment that deals with a variety of actors involved in the execution, regulation and football activities (Rossi, Thrassou and Vrontis, 2013).

This paper identified these actors, delineated their absolute and relative value and interrelationships, along specific attributes, and drew explicit theoretical and practical conclusions towards scholarly advancement and managerial implementation. Findings show that a variety of stakeholders exist, possessing different attributes, and need to be satisfied based on the priority they hold. Satisfying and balancing their needs helps clubs perform in a more efficient and effective way (Freeman et al., 2010).

Although the dynamic model of stakeholder salience mirrors the attributes of each stakeholder, the typology and classification are purely based on the managers' hypothetical and subjective judgment, considering that personal relations and social power often impact on the decision-making process. This perception variability can easily affect the attribute-salience relationship.

Managers should realize that integrity and mutual trust builds a good relationship and adds value to every actor. They should recognise each stakeholder's priority and adapt their personal views according to their shared value.

Further research

While recognising that the paper provides invaluable insight into the stakeholder identification and salience, yet not enough is decoded in this complex environment of the football industry. This is only a preliminary work that requires refinement and development through empirical research, to validate the extensive theoretical findings and test the degree of application to the specific environment.

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THE COMMUNITY POINT OF VIEW IS MORE IMPORTANT THAN EVER BEFORE: FROM ECITIZEN TO A SMART ENVIRONMENT

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ABSTRACT

The idea of *eUsluga* (eService) has elevated the process of submitting citizen applications to a whole new level. The public sector is replete with various bureaucratic barriers and the idea either minimized or completely eliminated their effects. Ultimately, the length of time required to process the applications was significantly reduced.

The initial goal was realized when users started to submit applications through mobile or web application. Republic of Croatia applied the eService through *eGrađanin* (eCitizen) platform which became operational in 2018. Such a scheme is an ideal framework for constituting a smart environment. Furthermore, if we consider that Croatia has initiated the eCroatia 2020 strategy, the situation is close to the ideal. In this paper we wonder if that is actually the case. The purpose of this paper is to analyze the present state of affairs in eService, the current direction of development and possible obstacles to that development. A primary research was conducted on a sample from student population which grew up with accelerated development of technologies. The familiarity with services and smart solutions are analyzed, as well as obstacles which could present themselves as potential risks that might impede the process of community digitalization.

Keywords: e-service, smart environment, Croatia 2020 Strategy, public opinion

INTRODUCTION

The humankind in the 21st century is characterized by an accelerated lifestyle caused primarily by the introduction of various communication tools in real time. These various communication tools have eliminated the need for a face-to-face communication. The applications which enable a real-time communication require a definition in accordance with a certain set of parameters in order to ensure a successful and unobtrusive communication for the user. The execution of business transactions over multiple time zones is enabled (and for quite some time now) by the implementation of modern technologies. This practice is rather common with major players in the market. The implementation of modern technologies has also enabled such players to conduct business transactions over multiple continents. Cloud solutions were instrumental in the beneficial results for business transactions. Hence,

solutions such as Azure Microsoft and O365 enable companies to utilize packages which provide all the necessary tools for teleworking or collaboration as well as efficient integration and informing of employees in real time.

It is a common fact that successful business solutions are in high demand. Consequently, the demand for solutions which enable easy access to public administration services is even higher. eCitizen is a platform intended for general population. Services under the purview of various ministries are available within this platform, thus creating a one-stop service. The service was launched on June the 10th in 2014 and it consists of a central place gov.hr, a NIAS and a mailbox for communication with users or citizens (eGovernment in Croatia, 2016:12).

ECROATIA 2020 STRATEGY

The development of platforms such as eCitizen and eGovernment was preceded by strategic planning regarding the development of network infrastructure or setting goals which would ensure the use of services. The intention of Strategy for Broadband Development 2016-2020, developed by the Ministry of Maritime Affairs, Transport and Infrastructure, was to lay foundations for the future development (STRATEGIJA e-HRVATSKA 2020, 2017:5). The main objectives included the following:

- Next Generation Access Networks (NGA) coverage, which enable Internet access at a speed exceeding 30 Mbit/s for 100% of the Croatian population;
- 50% of Croatian homes using Internet access at a speed exceeding 100 Mbit/s or more.

Furthermore, the Strategy defines a framework for eService development (STRATEGIJA e-HRVATSKA 2020, 2017:6):

- logical and efficient information flow;
- focus on public administration processes and services;
- open government – transparency, participation and cooperation;
- efficiency of public spending, and technological neutrality i.e. users must not be required to possess specific SW or HW

The third item in the strategy, the “open government – transparency, participation and cooperation”, implies a long-term planning in the field of solutions creation. “Open government” is one of the founding elements in creating a “smart government” (Harsh and Ichalkaranje, 2015:11). The definition of a smart government is:

“the implementation of a set of business process and underlying information technology capabilities that enable information to flow seamlessly across government agencies and programs to become intuitive in providing high quality citizen services across all government programs and activity domains.” (Rubel, T. (2014) cited from Harsh and Ichalkaranje, 2015:11)

The part of the definition which emphasizes the uninhibited flow of information and the claim of certain intuitiveness is what makes the system smart. As the case of Croatia demonstrates, the uninhibited flow of information is limited from the beginning, which can be substantiated with quotes from the Strategy itself (STRATEGIJA e-HRVATSKA 2020, 2017:30). eServices can be classified as:

- those using NIAS (National Identification and Authentication System)
- those not using NIAS

Accordingly, we will discuss an example which illustrates the difference (STRATEGIJA e-HRVATSKA 2020, 2017:30-31):

- eRegister uses NIAS (a service intended to follow the educational progress of children and adolescents)
- www.postani-student.hr demands a special, separate application regardless of the fact that the participants are Croatian citizens (previously registered even in eDirectory)

Consequently, this situation can have negative effects on the overall use of services, particularly with the elder population, the population with lower education or with the population which is not accustomed to the use of new technologies. The application process is self-evident but the problem ensues when the application with multiple user data is required in order to access services which are mutually connected. For example, the use of eRegister and postani-student (become a student) web page undermines the experience of using eService.

Beside the rejection of services by the user, it is possible to define several negative impacts (STRATEGIJA e-HRVATSKA 2020, 2017: 30 - 40):

- Every system i.e. project is applied individually
- Doubling of information (a single person is applied to two systems => equal OIB)
- The information is not exchanged between the systems (inefficiency, the lack of collaboration)
- A consequence of two previous negative impacts => the lack of transparency

The consequences which stem from a single source are human resources. The greatest problem is the lack of human resources or the lack of knowledge which leads to the inability to implement new ICT solutions. The salaries in public sector intended for experts in the ICT field are comparatively small to those in the private sector. This recurring situation leads to a systematic degradation of the public sector, as is clearly stated in the Strategy (STRATEGIJA e-HRVATSKA 2020, 2017:37):

“A systematic lack of investment in continuous education of civil servants, for both new and existing technologies, with significantly lower income in relation to the real sector, makes it impossible to recruit and to retain young experts, and makes the state administration uncompetitive. Bad systematization of working posts with corresponding competencies, i.e. vacant posts in all categories, is among the reasons which prevent quality”

HOW DO WELL IMPLEMENTED ESERVICES LEAD TO A SMART ENVIRONMENT?

A basic premise for constituting a smart government is the universal availability of open data, or simply put, data available to all. The introduction of eServices enables government and private organizations to have a large quantity of data at their disposal in real time. The available data must be protected in order to ensure the privacy of users. If the users' privacy rights were to be infringed by means of data-breaching, the users would lose confidence in the system.

The data available via *open data* can become accessible to the wider public through web pages. This goal can be achieved in two ways (Digitaljournal.com.: Federal budget provides funding to create open data institute (online), 2014), cited from: Harsh and Ichalkaranje, 2015:11):

- Stored on portals
- Linked to other government agencies

The result of the adequate implementation of eServices is the ready availability of large data sets. The users agree to a trade-off and the personal user information becomes available. What the user gains in exchange is the saved time that would otherwise be spent submitting various applications.

A growing number of governments in the world face the problem of citizens' claim for data transparency. The realization of transparency requires data segmentation. Clearly segmented data presented as clear information constitute a safe route to an open form of government. However, there are obstacles to overcome in order to ensure a successful implementation. Governments across the world are customarily rigid in their approach to new administrative solutions and innovative use of technology. When the fear of failure with possible political repercussions is added, such projects are immediately hindered in their implementation (Harsh and Ichalkaranje, 2015:11). The backbone of a smart environment is the availability of data in real time and failure to comply can result in severe public criticism.

However, certain examples do produce positive effects regarding the availability of data for the broader public. Unleashed and GovHack are events where the Australian government enabled web and application developers, *augmented reality-ists i mobile masters* to gain access to a large quantity of data and create useful applications and data visualizations on their behalf (Unleashedadelaide.dptiapps.com.au.: Unleashed Adelaide|South Australian node of GovHack (2014) cited from Harsh and Ichalkaranje, 2015:10).

The bottom line here is that eServices offer a direct benefit for users. On the other hand, the availability of necessary data offers an opportunity for service providers such as governments or private organizations to upgrade the quality of services.

DESCRIPTION OF ANALYSED ESERVICES

eRegister is an online service and an integral part of the eCitizen platform. It enables both students and parents to review the grades, student absence record and teachers' notes on a particular student. The application is active since 2012 and the mobile version enables a 24/7 accessibility. The parents access the application through eCitizen and the information on student absences are available within a day. The system of informing parents in this manner reduced the number of unauthorized student absences. In the case of an authorized absence, the parent may authorize the absence via e-mail.

The layout of screen application design:

eRegistry is an online service and part of the eCitizen platform. It is conceptualized as a digital form of the Registry already available in print form. The Registry documents are filled at the end of each school year. They contain all the necessary information on a particular student and their academic success. A certificate print-out is available based on the information entered in the system.

eVisitor is an information system designed for checking-in and checking-out guests and it " connects all Tourist boards in the Republic of Croatia and enables an insight into the current tourist flow, an updated data base on accommodation facilities and accommodation services providers, reports for statistical and marketing purposes in real time and improved collection of residence tax in order to achieve higher income in the tourism sector"(https://www.evisitor.hr/info/)

The purpose of the eVisitor system is the following:

- The acquisition and data analysis
- Check-in and check-out of guests
- Accounting and collection control of residence tax
- Data acquisition, analysis and reporting for statistical purposes
- Mutual cooperation between various bodies of public authorities in execution of legal requirements
- Destination management

eTax is described at the official web site as a "unique portal of the Tax administration (ePorezna-JPPU) which serves as a central place where tax payers can access electronic services provided by the Tax administration according to the One-Stop-Shop principle". (<https://e-porezna.porezna-uprava.hr/Pages/Ousluzi.aspx>)

Some of the services include:

- Tax payer data management,
- Reviewing tax data in the Tax Administration records,
- Submitting forms,
- Submitting applications,
- Submitting applications for tax return,

- Receiving acts electronically,
- Receiving notifications and information,

eHealth is a web-based service initiated by the Croatian health Insurance Fund (HZZO). The data can be accessed if the user is in a possession of a HZZO smart card or a FINA (Financial Agency) certificate. The system enables the employers to gain "access to registration/deregistration/change of status of health insurance beneficiaries or the receipt of electronically authorized, official T1/T2 forms" (<http://www.hzzo.hr/e-zdravstveno/>)

Since September 20th 2016, the citizens are enabled to, through eCitizen system, access services which are intended for the health system beneficiaries under the heading "Health portal".

The services available include:

- Access to prescribed and collected drugs in drugstores
- Access to medical records and hospital discharge forms from hospitals and specialist health care institutions (SKZZ)
- Information acquired using the ePrescription and eReferral services
- Granted or restricted access for general practitioners (GP), dentists, gynecologists or pediatricians

METHODOLOGY AND THE ANALYSIS OF RESEARCH RESULTS

The basic premise for developing a smart system is that users actually use the systems that are available, thereby contributing to the development of the system itself. Figure 1 shows how the user data is a foundation for constituting a smart environment while eServices are, in effect, a medium for transferring and acquiring data.

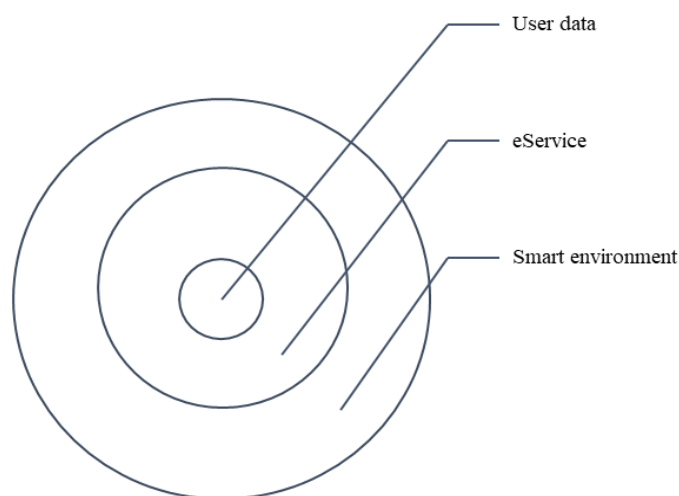


Figure 1. User data in the context of the smart environment (source: authors analysis)

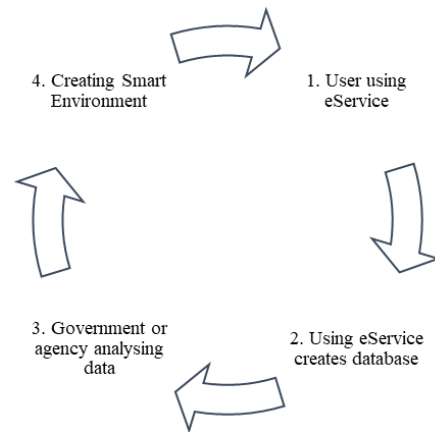


Figure 2. Flow of the info. between users and Smart Environment (source: authors analysis)

The availability of the user data constitutes a foundation for data analysis which is most relevant and most appreciated by the user. Upon the completion of the cycle, the users themselves increase the quality of their own environment by virtue of using the services themselves, thus rendering the environment smart. A smart environment is a context which, by virtue of utilizing various systems, "communicates" with the users. The environment constantly adapts to the users during the course of the communication. Such a flow is depicted in Figure 2.

For the purposes of this research we conducted an on-line survey using a questionnaire which consisted of five close-ended questions. 184 respondents participated in the research, 23, 36% male and 76, 64% female. The age structure of respondents is the following:

Age	No. of persons	Percentage
18 - 25	145	78,8%
26 - 32	28	15,2%
33 - 40	7	3,8 %
41 - 48	4	2,2%

Table 1. Age of the respondents participated in the research (source: authors analysis)

The structure of respondents according to the level of education is the following:

	No. Of persons	Percentage
PhD	1	0,5%
KV, SSS	75	41,21%
MA	13	7,14%
NK	8	4,39%
VK	4	2,2%
VSS	48	26,37%
VŠS	33	18,13%
Total	182	100%

Table 2. Structure of respondents according to the level of education (source: authors analysis)

	eRegister	eRegistry	REGOS	eVisitor	eTax	eHealth
I do not use the service	124	126	150	135	131	126
The service is completely unsatisfactory	0	0	1	1	2	4
The service is unsatisfactory	4	3	2	3	7	5
The service is neither satisfactory nor unsatisfactory	7	11	9	10	13	14
The service is satisfactory	31	24	8	16	15	19
The service is completely satisfactory	15	12	2	10	6	6

Table 3. *User satisfaction with the services (source: authors analysis)*

The Table 3 lists the values of research results on user satisfaction with the use of particular services. It is evident that, unfortunately, the majority of respondents are not users of services provided by the eCitizen system whatsoever. Services such as eRegister and eRegistry are intended for the employees in the education sector and the majority of respondents fall within the 18-25 age range. However, the users of these services have provided answers that they are satisfied with the service and graded it with 4 or 5. eTax and REGOS are services which provide the placement of online payments and access to tax records. Considering the age of the respondents, the result is quite expected because the student population does not have a steady income of their own, they are still dependent family members and they do not use services which provide access to tax records.

	Employment service	eRegister	eProcedures	MyID	eVisitor	eCertificates	eEmployment Record	eBoat	The Health portal	eCounseling
No answer	31	6	93	64	52	53	39	87	81	75
I am familiar with the service	124	120	75	75	100	94	112	81	81	91
I have used the service	29	58	16	45	32	37	33	16	22	18

Table 4. *Familiarity with the service (source: authors analysis)*

The Table 4 shows the research results on the user familiarity with the service and the use thereof. The majority of respondents, 124 (67,39%), are familiar with the services provided by the Employment service while 24 (13%) have actually used it. The next, most "famous" service is eRegister which was also highly exposed in the Croatian media. Hence, 120 respondents were familiar with the service while

58 (31,52%) respondents have actually used it. The service respondents were least familiar with was MyID while, according to this research, the very same service is the second most used. It is evident from the table that the level of awareness on the existing services in the eCitizen system is growing. It is necessary to raise the citizens' awareness on the existing services using various marketing tools.

Hypothesis (first)	Employment bureau	e-Register	eProceeding in the area of intellectual property	myID	eVisitor	eCertificates	eEmploymentRecord	eBoat	The Health portal	eCounseling
Familiar (average)	67%	65%	41%	41%	54%	51%	61%	44%	44%	49%
Users (average)	16%	32%	9%	24%	17%	20%	18%	9%	12%	10%

Table 5. *Percentage of population familiar with the existence of eServices and users of eServices (source: authors analysis)*

Three main hypotheses were tested in the paper:

H1: More than 50% use some of the eServices

H2: More than 80% are familiar with eServices

H3: The average grade of satisfaction with the use of a particular service is above 3

The H1 hypothesis " More than 50% use some of the eServices" is completely rejected for each of the eServices, considering that the percentage of respondents who use some of the eServices is 32%. The H2 hypothesis is completely rejected since none of the services meet the 80% threshold. The majority of respondents are familiar with the eEmployment bureau eService. Results can be seen in Table 5.

The H3 hypothesis is completely accepted since the satisfaction with the use of a particular eService is above 3 on average as can be seen in Table 6. Each service was graded individually and each is graded above 3 on average. As we discussed earlier in the section on theoretical issues, the constitution of a smart environment requires a critical mass of users who will effectively constantly improve the application by the very act of using it. The research demonstrates that the critical mass of users is still missing who would affect the development of a smart environment by their active involvement in use of the system. However, the satisfaction expressed by the users of applications suggests that the main

problem is not the adequacy of technologies but rather the willingness to accept them.

Satisfaction	Register	eRegistry	REGOS	eVisitor	eTax	eHealth
Satisfaction (average)	4	3.9	3.363636364	3.775	3.37209302	3.375

Table 6. *eService individual grading (source: authors analysis)*

Following the data analysis, it is plausible to draw a parallel between this research and a major survey conducted by the Republic of Croatia. The survey included 3000 respondents and it was carried out in the period between 17.12.2014 and 01.03.2015 (STRATEGIJA e-HRVATSKA 2020, 2017:86.).

The responses to the question "How important is the online access for certain services" are presented according to the percentage of representation in the research in a descending order (STRATEGIJA e-HRVATSKA 2020, 2017:97):

- Services in the health sector (arranging doctor appointments)
- Online voting
- Access to court registers and services
- Access to construction permits
- Job advertisement

Although the necessity for online health services is the most pronounced in this research, few users, 22 of them in our research, stated that they actually use the service.

Afterwards, the respondents were asked to choose between the three most important services they wished to be available as eServices. The results are the following (STRATEGIJA e-HRVATSKA 2020,2017:98):

- Finances and taxes 20%
- Health 16,7%
- The rule of law and security 10%

It is important to note that the education takes the fourth place on the list of priorities with 9% or to put it in another words, the citizens have expressed a need for establishing an eService aimed at education.

The next procedure included the analysis of responses regarding which services in the public sector are the most crucial to be established as an online service. The respondents were arranged according to age grade and it is abundantly clear that the majority of respondents in the age grade of 25 and above require such services. Health service feature most prominently among the 65+ age grade. The services which enable access to online data bases with job opportunities feature most prominently among the population which is about to enter the job market or reenters the job market i.e. 18 to 34 years old (STRATEGIJA e-HRVATSKA 2020, 2017:99). The results of the final question to be analyzed in the study can be compared with the research results presented in this paper. It is quite clear why is the

number of people using eServices so small in the health sector, for example. The reason for such a trend is precisely the age structure of the respondents which falls within the age grade between 18 and 25 years of age.

Our research demonstrated that the respondents display a desire to use smart solutions. However, further education of citizens on the existing solutions is required in order to increase the number of eCitizen users.

CONCLUSION

The research conducted on a sample of respondents from student population has demonstrated that the respondents desire to use smart solutions. However, it is necessary to inform the citizens further on the existing solutions and their advantages in order to increase the number of people using the eCitizen services. The research results demonstrate that the majority of users are either familiar with eServices or actually use them. The overall percentage of actual eServices user is rather small. The failure to use the eServices is a problem that requires to be addressed in the future or more specifically, what would be the motivating factors for the population to use the eServices. These issues will be addressed in the upcoming research.

By virtue of using the eCitizen services, the information and necessary documents are quickly and effortlessly available to the users and the public administration can gradually decrease the costs on account of increased efficiency and the reduction of the existing labor costs. The research results suggest that the users are familiar with the solutions but at the same time the solutions are insufficiently used. The benefits of using the services should be clarified for the users of the existing services and if necessary, award certain privileges for users who accept the services as a means of stimulating the utilization of technologies. The proper effort in educating the public should include the education of children, adolescents and especially students on the importance of using the technologies and the existing services, particularly nowadays when the extra time needed for tackling administrative problems is lacking.

Naturally, sensitivity for social issues is crucial here and the greatest care must be taken to include marginalized groups for whom the access to the network is unattainable. The solutions should be also properly adjusted to the elderly citizens and make such solutions simpler and more intuitive. The use of solutions is a foundation for constituting a smart environment. The eServices should be as transparent and intuitive as possible in terms of the user interface.

At this point in development of eCitizen system it is necessary to promote the system and simultaneously introduce the system to business activities. The students display awareness on the

necessity of using the technologies and the repeated and expanded research could provide more information on the use of available services within the eCitizen system.

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A CASE STUDY OF COLLABORATIVE MANAGEMENT APPROACH TO COMMON-POOL RESOURCES MANAGEMENT

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ABSTRACT

Some of prior studies posit that a *collaborative management approach* is the most suitable way to manage common-pool resources, including tuna resources, because it engages those who use the resources in the management process. Unfortunately, the approach has not been found effective in managing *migratory* tuna resources of the Western Central Pacific Ocean. Taking a case study approach, we investigated the collaborative management approach model taken by Western Central Pacific Ocean Commission and identified the root causes of the key issues in managing the resources. This study contributes to a better understanding of issues in managing common-pool resources, which may help policy-makers develop effective strategies for the sustainable management of the resources.

Keywords: Common-pool resources, collaborative management approach, tuna resources, Western Central Pacific Ocean

INTRODUCTION

Studies show that the world's fisheries as a common-pool resource are threatened by overharvesting and are facing serious challenges of depletion (e.g. Costello et al. 2016). The culmination of the several factors such as: increased fishing activities, increased vessels' capacities, improved fishing efficiency compounded with high rate of illegally, unreported and unregulated (IUU) fishing activities, have attributed to the overharvesting and depletion (ABC, 2016, WCPFC, 2016). Additionally, fishing in closed areas, violations of fishing licence rules, illegal discards (dumping untargeted species overboard), and misreporting of catch have all resulted in virtual extinction of certain tuna species, plundering of the fisheries, and loss of revenue for the Pacific Island countries¹ (PICs) (MRAG, 2016). The Marine Resources Assessment Group's Report, based on data obtained from 2010 – 2015, indicates

¹ Pacific island countries (PICs), commonly known as small islands developing states, have limited land landmass (with the exception of Papua New Guinea), with few natural resources, but they control the largest ocean area in the world.

that between 276,500 mt and 338,400 mt of tuna were caught through IUU fishing activities over the past six years. This has contributed to a loss in revenue to PICs of USD 123 million per year (MRAG, 2016).

The problems compel policy advocates, scholars, and others to search for effective solutions. In the Western and Central Pacific Ocean (WCPO)¹, regional fisheries management organizations (RFMOs) and coastal states are struggling to manage their tuna resources (ABC, 2016). The WCPO is the only ocean region that still has tuna stocks. However, the Western and Central Pacific Fisheries Commission (WCPFC), is facing difficulties in managing the divergent interests of its members over tuna fisheries. The region witnesses the depletion of species such as big eye and blue fin tuna, and overharvesting of the other species (ABC, 2016). The problem raises the question about the *collaborative management approach* (CMA) taken by the WCPFC.

Collaborative management approach (CMA) is generally defined as a working practice whereby individuals work together for a common purpose (Ansell and Gash, 2007). The basic principle of CMA, based on the study of Colebatch and Larmour (1993), are that members behave according to their group's norms and take collective actions to achieve their goals. It operates within the framework of the attributes: partnership, cooperation, participation, shared interests, collective responsibilities, mutual trust, social capital and consensus based decisions (Marttunen and Hämäläinen, 2008).

Earlier studies on the management of common pool resources (CPRs) have asserted that CMA is most suitable to CPRs (such as fisheries, rivers, minerals, meadows, forestry, etc.) including tuna resources because it involves those who use the resources in the management process (e.g. Acheson, 2013, Hauzer et al., 2013). One of the main advantages for involving the resource users is that every member takes part in the decision making process which, in turn, instils a sense of ownership among the users, and motivates them to use the resources more responsibly (Ostrom, 2015). Fulton (2011) asserted that one of the key components for the successful management of fisheries is the inclusion of stakeholders in the management process known as "participatory management" (p.10). In terms of the WCPFC, such a management approach involves 26 member countries, cooperating non-members, participating territories and stakeholders such as non-government organizations (NGOs), fishing industries, RFMOs and sub-RFMOs, making it a potentially complex management structure.

While CMA may work well with the management of some of traditional coastal fisheries in Pacific Islands, known as community based fisheries management (Moses, 2016), the effectiveness of the approach elsewhere involving regional and international actors such as the WCPFC remains questionable (Hanich and Tsamenyi, 2014, Norris, 2015).

¹ This is the region stretching from Indonesia and the Philippines in the west, to Hawaii, Kiribati and French Polynesia in the east, and from the southern oceans at 55 degrees south to the waters of the Arctic in the north.

This study therefore seeks to examine the factors influencing the outcomes of the CMA and explore the root causes for the failure of WCPFC in managing tuna fisheries in WCPO. The study has practical implications for managing other common-pool resources.

LITERATURE REVIEW

This literature review focuses on the (perceived or realised) benefits and outcomes of CMA, and the factors influencing CMA outcomes. We conducted a comprehensive and structured literature review on the topic areas. Most of the reviewed articles were published in leading scholarly journals, being peer reviewed and recorded most citations. The majority of journals reviewed were published between the years 2000 to 2015 to capture a reasonably current state of understanding on the topical areas. However, other journal articles published three to five decades ago have also been reviewed. Indeed, many of the earlier authors were eminent in this field, for example Elinor Ostrom was the joint Nobel Prize winner in 2009 in Economic Science (Anderies and Janssen, 2012), as well as others including Hofstede, Axelrod, and Nash. These same authors turn up as references in many of the more recent articles on the topic.

The major databased used to search the articles for the review include Pro-Quest, EbscoHost, Emerald, AQORA and JSTOR. These databases provide a balance of conceptual and empirical account in the areas of study. The key search words were selected based on their importance in the study field, including management of CPRs, collaborative management, co-management and common-property rights; collective action, and community based fisheries management (CBFM). Most of these terms were used interchangeably because they have similar meanings as they operate on the same management principles within the framework of partnership, cooperation, shared interests, collective responsibilities, mutual trust, and consensus based decisions. The search criteria included (1) articles were published between 2000 and 2015; (2) articles must have at least 50 citations; (3) articles must be peer reviewed; and (4) articles must be related to the management of CPRs. The number of articles analysed was also determined by the timeframe given to carry out the study, and the point of saturation reached from the information gathered (Kirriemuir and McFarlane, 2004). As a result, a total of 68 publications were selected for this review. Table 1 presents a brief summary of the basic features of the publications.

Year (& No.) of publication	Type of study		Methodology		Geography		Main aspect of CPR* CMA studied				
2000 - 2015	54	Empirical	46	Quantitative	9	North America	33	Overall effectiveness	14	Natural resources	23
1990s	9	Conceptual	22	Qualitative	6	Central America	1	Structures	6	Fisheries onshore	9
1980s	2			Mixed method	11	South America	1	Efficiency	4	Fisheries offshore	0
1970s	1			Ethnographic	12	Europe	12	Outcomes & Results	10	Agriculture	1
1960s	1			Experimental	8	Asia	11	CMA Theories	3	Unspecified	35
1950s	1			Conceptual	22	Africa Pacific	8 2				

Table 1. Summary of basic features of the articles (N=68) reviewed

***Note:** Common-pool resources (CPRs): *natural resources* refers to forests, wildlife, ponds, rivers, and minerals; *fisheries onshore* refers to fisheries on the coast; *fisheries offshore* refers to fish in the deep ocean far from the coast (mostly pelagic, or migratory species); and *agriculture* refers to irrigation systems and pastures.

Given the purpose of this study, we presents a brief summary of the findings of our literature review as follows.

Benefits of Collaborative Management Approach

Our literature review finds that collaborative management approach (CMA) has both *perceived* benefits (e.g. Heikkila and Gerlak, 2005; Berkes, 2009) and *realized* benefits (e.g. Cheng and Sturtvant, 2012) in the management of CPRs. Research shows that CMA can offer a number of benefits such as: (1) common goal – group members share similar aims or desired results; (2) prevents conflicts by helping members to interact and solve their differences (Sa-Ngiamlak et al., 2011); (3) social learning – it enables group members to learn from each other's needs, perspectives and positions and thus promotes greater knowledge and understanding among members (Marttunen and Hämäläinen, 2008, Richie et al., 2012); (4) better relationship – it improves members' relationships and cultivates partnership; (5) mutual trust – it increases trust among members (Bruckmeier and Larsen, 2008, Caldwell et al., 2009); (6) participatory decision makings - all the stakeholders are involved in the decisions, and the decisions are often made through consensus. Hence, a group tends to take ownership of the collective decisions, increasing their commitment to their objectives; (7) integrated management – members share resources and responsibilities, which enhances unity by bringing together different groups under a single framework (Olaru et al., 2014, Munoz-Erickson et al., 2010); (8) mutual respect – it fosters respect among members (Richie et al., 2012); (9) collective benefits – all stakeholders benefit from the outcomes (Espinoza-Tenorio et al., 2012).

Outcomes of Collaborative Management Approach

Although the majority of the literature that we reviewed has asserted the effectiveness of CMA in terms of the efficiency and equity in managing CPRs, scholars such as Agrawal (2003), and Grafton et al. (2006) amongst others have reported some negative results in their research findings in terms of cooperation towards the sustainability of CPRs. We find that out of the 10 empirical studies reviewed with a focus on the outcomes of CMA, about 40 percent of them, mostly in America, USA, Africa and Europe reported a negative outcome, due to various factors (to be discussed in the next section). Despite the negative outcomes, the majority of scholars are optimistic that the weaknesses can be addressed, and have suggested ways for improvements. Moreover, most of them indicate that CMA is ideal for CPRs (e.g. Mutimukuru, 2010, Boateng, 2006). Reynard (2002) and Masomera (2002) have argued that there is no one-size fits all approach, and the optimum management structure and approach must be context-based.

Factors influencing Collaborative Management Approach Outcomes

Our literature review finds that for a CMA to be successful in managing CPRs it has to meet certain favourable conditions including (i) equal power distribution among members, (ii) strong common interest (iii) certain cultural orientations (predominantly communalism, femininity and long-term orientations), (iv) fair endowment, (v) high-level of cooperation; (vi) strong leadership style, (vii) low to moderate transaction costs, (viii) incentives, (vix) clarity of rules, (x) small size groups (rather than large ones) and (xi) self-enforcement compounded with external enforcement. In terms of *power distribution*, Gallardo et al. (2013) argues that CMA does not guarantee a uniform egalitarian partnership in practice. There are different sources of power held by individuals within a CMA group. The two highlighted by scholars of most relevance to this study are political and economic powers (Acheson, 2013; Davis and Ruddle, 2012). Another factor that influences CMA outcomes is self-interest vs *common interest* (e.g. Acheson, 2013). CMA is intended to achieve organisational objectives and to benefit all members collectively. However, this may not occur if most members tend to value their own interests above the group's interests and opt for personal benefit once they see the opportunity, or if the group benefit is less than the individual one (Colebatch and Larmour, 1993). *Cultural orientations* have been found influencing the outcomes of CMA (e.g. Jentoft and Chuenpagdee, 2009, Pinel, 2013). Human behaviors are pre-dominantly influenced by cultures (norms, beliefs and values) (Hofstede et al. 1991). Mansbridge (1990, p.64), noted that "... not all cultures promote the same behaviour ..." which can be very challenging in international and regional institutions where members have different cultural values and orientations. In terms of *endowment*, if members endow their financial contributions to an association such as WPCFC, they tend to take more ownership, increase

loyalty and commitment to the objectives of the organization. This is because they have invested their money into the organization (Ostrom, 1999). Managing highly migratory CPRs such as tuna fisheries in an open-access or free-for-all area requires strong *cooperation* among member countries, fishing industries and stakeholders. Hence, the level of cooperation is found to affect the outcomes of CMA (McGuire, 2006). *Leadership* is found to affect the outcomes of CMA in CPRs management (e.g. Cheng and Sturtevant, 2012). For example, a participatory approach taken by a leader is important in matters such as decision-making, the enactment of laws, the development of policies, and by listening to the views of members and helping them come up with sound decisions (e.g. Marttunen and Hämäläinen, 2008). *Transaction cost* is found to be another factor influencing the outcomes of CMA (e.g. Dyer, 1997). In the context of tuna fisheries in WCPO, the transaction costs can be the costs involved in trying to comply with the conservation management measures. *Incentive* is found to influence positively CMA outcomes and have been used as a tool to encourage compliance with rules in the appropriation of CPRs (e.g. Hanich et al., 2015). In the context of CPRs, rules are normally set by members of a group (communities) that use or harvest the resources. Studies show that the enactment depends on the clarity of the rules (e.g. Xepapadeas, 2005). The size of group is also found to affect the outcomes of CMA. Olson (2009) argues that the larger the group the less it will further its common interest. CMA outcomes can also be influenced by the effectiveness of the monitoring and *enforcement* of rules. Studies show that monitoring and enforcements of rules on CPRs are often problematic due to lack of resources, under capacity, and no follow-up (e.g. Reaves and Bauer, 2012).

The prior research discussed above about collaborative management approach in managing common-pool resources is informative and serves as a framework for our study. However, we also identify some research gaps from the literature review.

Major research gaps

This section discusses the major knowledge gaps. As showed in Table 1, the majority of the studies have been originated from North America (33), Europe (12) and Asia (11). Only two studies tackle the issues in the Pacific region, and these involve Australia and New Zealand only. However, the majority of countries in the Pacific region are small Pacific Island countries (PICs). None of the studies we reviewed touches on the issues in the context of the PICs. We argue that the context of studies places an important role to the conclusions of research findings and the generalisation of new knowledge or theory. Factors such as beliefs, attitude, socio-cultural, economics, and political environments play a key role in influencing how societies (or communities) behave and interpret their situations (Podsakoff et al., 2012). Furthermore, most of the literature available examines the management of natural resources and coastal fisheries. These are the CPRs that are localised in a single geographical

area shared by a community within that vicinity. However, none of the studies discusses migratory CPRs such as tuna fisheries which are managed by countries from a region and distant water fishing nations (DWFNs). The management of migratory CPRs presents a serious challenge as it involves different sovereign states. It also involves different actors with different level of powers (e.g. Coastal States and DWFNs) that are subject to different sovereign laws and national interests. These are the dynamics that are inadequately taken on board in prior studies, arguably leading to another knowledge gap. We seek to address the knowledge gaps while taking into account what has been done in the prior studies and their findings on the topic area.

METHODS

Case study design

This study follows a case study design as it is the preferred strategy when how or why questions are being investigated (Yin, 1994). A case study is useful when in-depth explanations of social behaviour are sought (Zainal, 2007) and when examination of data is conducted within the context of its use (Yin, 1994). We selected the WCPFC as a unit of analysis and investigated how it managed tuna resources – a CPR in the Western Central Pacific Ocean and the root causes for failing to do so. We selected WCPFC as a case organization because the WCPFC serves as a classic example of using CMA in managing CPRs at both regional and international levels and the findings of this study should have wider implications for the studies of CPR management.

The WCPFC was established in 2004, principally to manage tuna stocks in the high seas. It consists of 26 member countries: mostly the Pacific Islands Forum members (PIFs) including Australia, New Zealand and 14 PICs, and Distant Water Fishing Nations (DWFNs) including Canada, USA, EU, China, Chinese Taipei, Republic of Korea and coastal states such as Indonesia and the Philippines. The WCPFC is intended to operate under a legally binding framework founded on collaborative principles based on collective responsibility and collective benefits (WCPFC, 2013).

Data collection and analysis

We conducted semi-structured and face-to-face interviews to collect interviewees' insights into the CMA practices in the WCPFC, the outcomes, and factors influencing the outcomes. Offshore tuna fisheries in the WCPFC is a sensitive issue, with government representatives from member countries hesitant to reveal information about their governments' position or their opinions. Using face-to-face interviews offers the opportunity to break the barrier because on most occasions discussions begin on the surface of the subject and then develop further into the core of the issue once trust is developed (Holbrook et al., 2003). The key questions that we asked include:

- How is the collaborative management approach used by the WCPFC to manage tuna resources in the region?
- What do you think are the main factors that have attributed to the rapid decline of tuna resources in the region?

Using a purposive sampling technique, we selected the potential participants in our interviews, targeting at the key senior fisheries officers representing the 26 member countries of WCPFC. Most of them hold important responsibilities in their countries such as CEOs, directors, deputy directors, permanent secretaries, and senior fisheries officers, and who were usually the gatekeepers holding most of the management information about the tuna fisheries. In an attempt to gain comprehensive insight into the WCPFC's CMA issues, we also sought cross sectional viewpoints from potential informants holding different responsibilities. For example, officials who were engaged in monitoring, control, and surveillance (MCS) of the tuna fisheries were also interviewed. Likewise, we also interviewed representatives of fishing industries, scientists, and NGOs. As a result, we interviewed a total of 40 key informants. (All interviewees requested anonymity prior to the interviews, therefore as part of keeping that confidentiality, we are unable to provide further demographic data about the participants in our interviews). The interviews took between 30 minutes to 1 hour depending on the availability of the interviewees. All the interviews were recorded after obtaining the consent from the interviewees. English was used in all the interviews.

We used NVIVO software to help analyse our interview data by classifying, sorting and arranging information gathered into their respective themes. It also helped in concept-mapping to examine the relationship between concepts. We used a thematic data analysis to identify and categorize themes. The following section presents our analysis and discussion of the findings.

FINDINGS AND DISCUSSION

Failure of CMA of WCPFC

Prompted by the recommendation of the United Nations Convention on the Law of the Sea (UNCLOS, 1982), the WCPFC was established to implement a *collaborative management approach* (CMA) to manage the tuna resources of the Western Central Pacific Ocean. However, the tuna resources in the region have been declining and some of the species are facing extinction, which sends a serious warning that the whole tuna fisheries in the region could be depleted in the not too distant future (ABC, 2016). Increased fishing activities, increased vessel capacities, improved fishing efficiency compounded with high rate of illegally, unreported and unregulated (IUU) fishing activities, have culminated in overharvesting of the tuna fisheries. IUU fishing activities have led to overharvesting, virtual

extinction of certain tuna species, plundering of the fisheries, and loss of revenue for PICs (MRAG, 2016).

There was a consensus among the participants in our interviews that WCPFC was not able to stop the overharvesting and its CMA model was not working. It is obvious that the potential benefits of CMA found in prior studies were not realized in the case of WCPFC. There were many causes for the failure.

Main causes for the failure

As discussed in our literature review section, prior studies have identified eleven factors that may influence the outcomes of CMA, including equality of power, self-interest, cooperation, endowment, cultural diversity, leadership, transaction costs, incentives, clarity of rules, size of the group, and enforcement. We draw on the prior studies to guide our analysis and frame our discussion below. Given the space of this paper, we limit our discussions to the most important causes for the failure identified through our interviews.

Power inequality and different powers

One of the conditions agreed by members of WCPFC prior to its establishment (in 2004) was that power must be equally shared among the members to ensure a consensus-based decision making process. However, the majority of the participants that we interviewed indicated that WCPFC members did not have equally shared power. A representative of a sub-regional country interviewed stated:

....Yeah there is a big power inequality but it cuts both ways. The smallest countries on earth are dealing with the most powerful, economic thugs, they use their markets, their aid and other instruments, they can intimidate PICs. However, another source of power is that these fish occur in the waters of developing countries, 90% of the catch is taken either in the waters of PICs or in Indonesia, Philippines or in the waters adjacent to those countries. That gives a very great power to the PICs. This WCPFC is about that balance of power on one hand, PICs with their power of ownership and right of the resources, and on the other hand the economic and political powers of the DWFNs. That's the game.

We found from our interviews that the DWFNs had economic and political powers while PICs owned the tuna fisheries. WCPFC members used their different powers to pursue their national and sub-regional interests. This caused them to bargain, or veto any genuine proposed conservation management measures. As a result, the CMA of WCPFC lost in the power struggles.

Competing interests

The evidence obtained from our interviews indicated that self-interest was dominant among the practices of WCPFC members, although members understood the importance of common-interest (i.e., interest for conservation and sustainability of tuna fisheries). Two participants put it this way:

The work of the WCPFC is extremely difficult because of the divergent interests among the members. This makes negotiations very difficult.

Well, when conservation management measures are not agreed or when there is no decision on the issues, this certainly means there is a difference in interest...I think from a DWFNs perspective, they will continue fishing, continue having their businesses alive, but from a coastal state's perspective it's a matter of sustaining that resource to ensure that there is a maximum economic return, so whether it be excess fees or what so ever value added. Therefore, I would say perhaps the common goal would be to have sustainable fishery, there would be differences on what would be the economic returns, what it mean to those different perspectives.

We found that the DWFNs wanted to gain the maximum benefits from the fishery resources, while PICs felt that they did not receive fair shares and were proposing an increase in the resource rent, which did not go down well with DWFNs. One of the participants told us '*almost four billion dollars' worth of fish was harvested in Pacific waters in 2013, but not even one-fifth of that value was returned to the region (the PICs)*'. Thus, the main issue here was the unequal share of benefits received from the tuna resources among the WCPFC members. Therefore, we consider that the disagreement and competing interests of the members affected negatively the outcomes of WCPFC's CMA.

Cultural differences

The WCPFC member states have diverse cultures, which was seen negatively affecting the outcomes of CMA in WCPFC. For example, one of the participants commented:

Cultural differences actually hinder a lot of things....on how we manage this resource [tuna fisheries]. You take for example, Pacific Islanders, have to listen to chiefs when it comes to talking in meetings, they can't talk even if they know the subject. However, there are other parties that do not possess the culture of being obedient; they make a lot of noise in the meetings when they talk. That sort of cultural thing has seeped into this management and has worked against us too.

The comment indicated that the presence of power distance influenced the behaviour of members during their meetings. Drawing on Hofstede's culture research, countries that are high in power distance tend to be submissive. This is prominent with PICs that have high respect for chiefs, leaders and their early colonial powers (e.g. USA, EU, and Britain). They viewed these people on the hierarchy end of society. Thus, they tended to keep quiet in decision-making process. In contrast,

those members (e.g. Australians and New Zealanders) who came from low power distance culture freely debated issues that concerned them. Our interview findings also indicated another distinct cultural difference – individualism and collectivism that hindered the way that member countries managed tuna resources and the CMA was enacted. For example, an official we interviewed told us:

We, in the Pacific, are more communal in our approach, we love our community-based management. The Western world looks at things differently, they do their own things and do not mind others' businesses. I think the perception that DWFNs have, will also affect the way we manage our resources collaboratively. They look at their own survivability, the economical viability, etc. Yes, I think our upbringings do have an impact on the way we manage our resources collaboratively.

The remarks showed that different cultural orientations affected the behaviour of member countries and collaboration within WCPFC that may cause the fallout of CMA.

Lack of self-enforcement

Our interviews found that most participants believed based on their past experience with WCPFC that self-enforcement was not a viable mechanism to manage migratory tuna resources. Here are some of the comments made by the participants:

I don't think voluntary compliance will happen because fishing industry is based on profit, so I do not think voluntary compliance will be possible.

...it is and will be difficult for the DWFNs to participate co-productively in this approach [self-enforcement] because they have different interests. They are more interested in making money. So we still need observers to oversee their activities and to increase the capacities of external monitoring and surveillance.

When we talk about offshore resources, we refer to migratory species that trans- boundaries, it is very difficult (to apply self-enforcement) because they are highly migratory. The key to managing such resources is monitoring and surveillance, if people feel that they own the resources or part of them.

The above comments imply that self-enforcement will not work for organisations (or multi-organisations) that pursue self-interest or profit making (Colebatch and Larmour 1993). From our interviews, we can see that it is difficult for self-enforcement to work in commercial fisheries and in a heterogeneous coalition where members have divergent and competing interests. The self-

enforcement is also not viable in open-access areas such as the high seas where ownership is often disputed on the fishing ground.

Size of WCPFC

In our interviews when talking about the size of the WCPFC, there was a consensus that WCPFC was such a large and diverse group, making it difficult for them to agree on conservation management measures, resulting in not being able to achieve WCPFC's conservation goals.

...as members get bigger, it gets complicated and the interests get wider, and some of these interests are finding other forums to creep into this WCPFC, so yes the size as it is now makes it more complicated than it was initially set-up.

Well in terms of group dynamics [in the WCPFC], bigger groups are very hard to manage because the bigger the group, possibly the more interests in it. The bigger the group that would be hard to make decisions, the smaller possibly manageable would be good, we can identify who are the key stakeholders in the fisheries would be good because they play a major role in the fisheries.

The WCPFC is made up of DWFNs and PICs who are heterogeneous, representing fishers and the resource owners. Our interview data show that members in such a large and heterogeneous group had considerable difficulty to reach consensus, such as in the conservation management measures. Members often had different and conflicting intentions and interests. For the DWFNs, they would prefer to continue with the existing financial benefits gained from the tuna resources while PICs wanted somewhat equal share of the cake (benefit) being the resource owners. In addition, the differences in the level of power among the members and different cultures affected their level of cooperation and consequently the outcomes of the CMA adopted by WCPFC. Furthermore, the differences among the members affected trust among them in that PICs did not think DWFNs or fishers can self-enforce due to increasing IUU fishing activities in the region (MRAG, 2016).

CONTRIBUTIONS OF THIS STUDY

This study advances the existing literature and understanding of common pool resources management in general, and migratory tuna resources management in particular. Tuna migrate from one national boundary to another within the Western Central Pacific Ocean and are mostly fished by DWFNs. By studying the WCPFC comprising of the PICs and DWFNs, this research extends the understanding of the management of CPRs from one single geographical area to multiple

geographical areas, and includes the analysis of the motivations and conducts of international actors. This study also contributes to the extant research of collaborative management approach by exploring empirically the key factors that affect the outcomes of CMA through a case study. The findings from this study should contribute to future theoretical development of a new model to advance common-pool resource management research.

In addition to the contribution to extant body of knowledge, our study makes practical contributions because tuna resources in the WCPO are vital to the economy and the sustainable development of the region. Compared to other ocean regions, WCPO supplied more than 50 percent of the tuna resources to the global markets (World Bank, 2016). The findings of this study are expected to inform policy-makers in the WCPO region about the key issues that the current management approach (CMA) has raised and help them develop policies and strategies to address the issues.

CONCLUSIONS

Earlier studies have asserted that the use of CMAs is the most suitable way to manage CPRs such as tuna fisheries and resources (e.g. Acheson 2013; Huezer et al. 2012). However, our research has shown that the CMA does not appear to instil the sense of ownership among WCPFC members that is needed to encourage and develop *sustainability* and *collective benefits* of the fisheries, as argued by scholars such as Acheson (2013); Huezer et al. (2012). Our research demonstrates that a CMA is not necessarily effective for groups (that includes stakeholders, multi-governments, and multi-national organisations) that are highly heterogeneous, especially those that involve international actors (cross-country and cross-cultural), such as a combination of developed, developing and least developed countries. Their significant differences, competing interests, and different economical aspirations appear often to lead them to base their decisions at the expense of collective objectives and collaborative institutions. The findings of our research lead to a conclusion that it would be difficult for the WCPFC in its current form to be an effective institution capable of managing and sustaining the tuna fisheries in the WCPF region. Consequently, the problem of overfishing will continue and, regrettably, the depletion of tuna species is likely to continue.

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BOOK OF CONFERENCE ABSTRACTS

ENTREPRENEURIAL OPPORTUNITY RECOGNITION IN THE CONTEXT OF ENTREPRENEURIAL UNIVERSITIES

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ABSTRACT

RESEARCH AIM

This study aims at exploring how entrepreneurial opportunities are recognized in the universities who are the winners of the Times Higher Education (THE) Entrepreneurial University of the Year Award (2008-2016).

LITERATURE REVIEW

Shane and Venkataraman (2000) argue that the researchers of organization field are interested in three questions regarding entrepreneurship phenomenon. Those questions are related to “Why”, “When” and “How” questions for three areas: recognizing opportunities for producing products and services, the ability of certain people, but not other, to recognize and exploit opportunities and using different ways for exploiting entrepreneurial opportunities.

In this context, Siegel and Renko (2012) argue that only vague answers can be provided to the questions related to when, who and how opportunities can be recognized. This is because of the different ontologies of the opportunity itself as well as the lack of agreement on what constitutes opportunity recognition. Therefore, Renko argued in (2008) that entrepreneurial opportunity recognition is the area by which cohesion has not been attained yet because of the diversity of, or even kind of contradictory, definitions related to nature of this type of opportunities. The authors of the present paper claim that the case of non-integrated cohesion of entrepreneurial opportunity recognition still exists for the same reasons mentioned above. This motivates the authors of the present study to dig more into the entrepreneurship field to obtain a profound understanding for opportunity recognition phenomenon. This will be done through focusing on the factors that determine opportunity recognition process.

Reviewing the relevant literature shows that there is a large number of the aforementioned factors; however, six of them have received the greatest attention by the entrepreneurship scholars. Those factors are prior knowledge, social networks, alertness, creativity, systematic search and environmental changes.

METHODOLOGICAL CONSIDERATION

The present study is a qualitative. Multiple case study approach has been chosen to be the research strategy for this qualitative study. To apply this strategy, two methods have been used to collect the data: documented secondary data and semi-structured in-depth interviews with directors of entrepreneurship centres and Deans in those UK universities who have been winners of the THE Entrepreneurial University of the Year Award. Twenty-four interviews have been conducted. Each interview lasted approximately between 45-95 minutes.

MAIN FINDINGS

The data collected from the five universities under study, both the interviews and documents, have been analysed by employing Template Analysis technique. The main findings of this study are summarized in Figure One.

1. Networking

1.1 Internal networking

1.2 External networking

1.2.1 Networking with government

1.2.1 Networking with industry

1.2.3 Networking with other universities

2. Prior knowledge and experience

2.1 Experience

2.2 Prior knowledge

2.2.1 Knowledge about how to run business (Business knowledge)

2.2.2 Enterprise and entrepreneurial knowledge

2.2.3 Knowledge about industry

2.2.4 Knowledge about students

3. Entrepreneurial alertness

3.1 Being aware of opportunities overlooked by others

3.2 Distinguishing between value creation and non-value creation opportunities

3.3 Finding connection between unrelated information/ areas

4. Creativity

4.1 Being different

4.2 Teamwork

4.3 Feelings and emotions

- 4.4 Continue supporting creativity
- 5. Systematic search vs serendipitously discovered
 - 5.1 Systematic search
 - 5.1.1 Continuous search for opportunities
 - 5.1.2 Market research
 - 5.2 Serendipitously discovered
 - 5.3 Both systematic search and serendipitously discovered
- 6. External environmental changes
 - 6.1 Respond to the external environmental factors (competition, political factors, technological advances, societal factors and globalization)
 - 6.2 Being fast
 - 6.3 Being proactive
 - 6.4 Risk taking
 - 6.5 Meeting people's needs
 - 6.6 Horizon scanning

Figure 1. final version template.

The answers of the interviewees show that there are interactions between some of the factors listed in Figure One. This is in line with a number of the studies (e.g. Ardichvili et al., 2003, Zaheer and Zaheer, 1997, Hisrich et al., 2013, Ozgen and Baron, 2007, Barringer and Ireland, 2016, Shepherd and DeTienne, 2005, Ardichvili and Cardozo, 2000). Having such interactions will help in finding a mix of resources and capabilities required for enhancing the above-mentioned factors. This, in return, can highly contribute to facilitate the process of opportunity recognition in the universities under study. Such a mix may differ from organization to another and it may differ in the same organization during different times which the organization goes through.

Keywords: entrepreneurship, entrepreneurial opportunity recognition process, entrepreneurial university, Times Higher Education.

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CRITERIA FOR ENTREPRENEURIAL UNIVERSITIES: EVIDENCE FROM THE UK UNIVERSITIES

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ABSTRACT

This study aims at identifying the main criteria that can be used to decide whether a university is entrepreneurial. To achieve the above aim, a multiple case study has been conducted. Two methods have been used to collect the data; the first one is semi-structured in-depth interviews, which have been conducted with Twenty-four directors of entrepreneurship centres and Deans in those UK universities who have been winners of the THE Entrepreneurial University of the Year Award. Each interview lasted approximately between 45-95 minutes. The second method is documented secondary data. Template Analysis technique has been employed to analyse the data collected from the universities under study. The main findings of this study are summarized in Figure One.

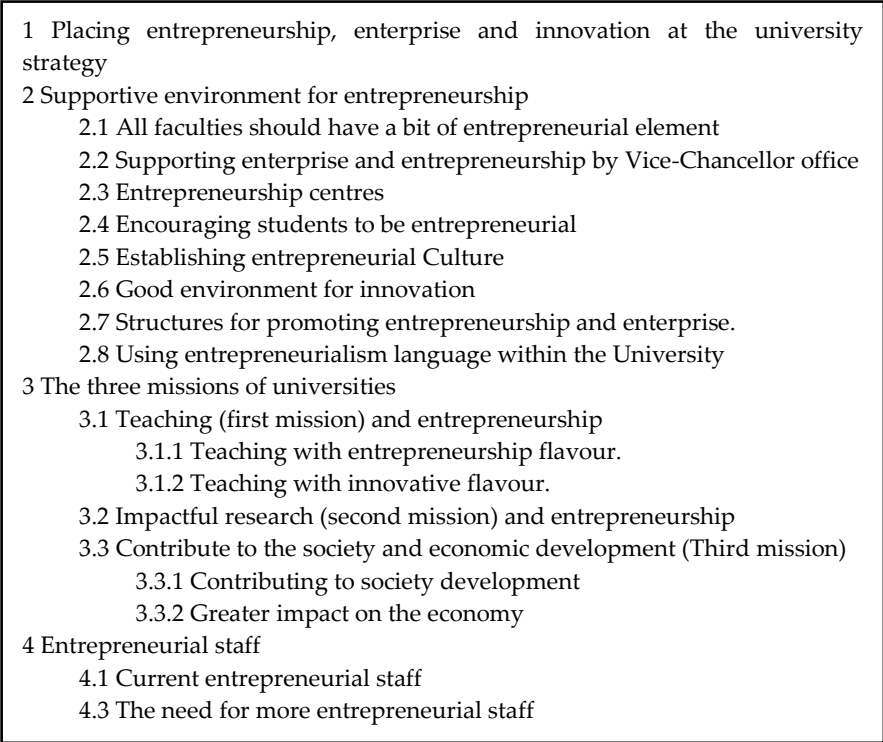
- 
- 1 Placing entrepreneurship, enterprise and innovation at the university strategy
 - 2 Supportive environment for entrepreneurship
 - 2.1 All faculties should have a bit of entrepreneurial element
 - 2.2 Supporting enterprise and entrepreneurship by Vice-Chancellor office
 - 2.3 Entrepreneurship centres
 - 2.4 Encouraging students to be entrepreneurial
 - 2.5 Establishing entrepreneurial Culture
 - 2.6 Good environment for innovation
 - 2.7 Structures for promoting entrepreneurship and enterprise.
 - 2.8 Using entrepreneurialism language within the University
 - 3 The three missions of universities
 - 3.1 Teaching (first mission) and entrepreneurship
 - 3.1.1 Teaching with entrepreneurship flavour.
 - 3.1.2 Teaching with innovative flavour.
 - 3.2 Impactful research (second mission) and entrepreneurship
 - 3.3 Contribute to the society and economic development (Third mission)
 - 3.3.1 Contributing to society development
 - 3.3.2 Greater impact on the economy
 - 4 Entrepreneurial staff
 - 4.1 Current entrepreneurial staff
 - 4.3 The need for more entrepreneurial staff

Figure One: final version template.

Keywords: entrepreneurial university, UK universities, entrepreneurship, enterprise, innovation, third mission of universities, supportive environment entrepreneurial staff.

SOCIAL MEDIA IN B2B SALES: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Academics and practitioners alike have paid increasing attention to the rise of social media in B2B selling. Yet, extant academic research lacks conceptual clarity and appears highly fragmented. The purpose of this study is to provide a systematic overall picture about 'social selling' and to lay the groundwork for future research.

INTRODUCTION

The digitization trend in B2B markets has entailed major changes in customers buying behaviors. Customers are more powerful and less reliant on traditional selling initiatives and increasingly employ digital resources and social media during their buying processes (Fidelman, 2012). Therefore, practitioners have started to talk about 'social selling' as a new prominent contemporary selling approach. Yet, a deeper going analysis on the topic is missing (see Salo, 2017). Notwithstanding the numerous valuable contributions on the topic, extant research knowledge appears fragmented and lacks conceptual clarity. Against this background, the purpose of this study is to create a systematic overall picture about 'social selling' by conducting a systematic literature review in this area (see Tranfield *et al.*, 2003) and lay the groundwork for future research.

SYSTEMATIC LITERATURE REVIEW

The following search strings were entered in three Internet-based research databases (i.e. Scopus, Emerald and Web of Science): (1) "social media" AND (sales OR selling OR seller OR salespeople OR "sales force" OR "sales process") AND (B2B OR B-to-B OR "business-to-business" OR industrial); (2) "social selling" AND (B2B OR "B-to-B" OR "business-to-business" OR industrial). The review encompasses the time frame 2001-2017 and the entire process yielded a total of 28 publications (see Table 1).

Table 1. Database search process and results

Database / Search phase	Keywords-based hits	Duplications	Exclusion based on text analysis	Selected studies
a. Scopus	66	-2	-49	
b. Web of Science	49	-31	-18	
c. Emerald	12	-9	-2	
Database search total	127	-42	-69	16
Backward search				7
Forward search				5
Included articles total				28

FINDINGS AND DISCUSSION

We contribute to personal selling and digital marketing research through deepening understanding about B2B social selling. To cope with the heterogeneity of the studies, three main areas in extant research (i.e. key constructs, antecedents and outcomes) and key patterns in research findings have been identified. Our research provides conceptual clarity to this area by developing definitions and identifying key activities for social selling (see Table 2). Indeed, scholars have hitherto studied social media usage in sales, embracing a technology-centered view on this topic (e.g. Agnihotri *et al.*, 2016; Guesalaga 2016; Itani *et al.*, 2017; Rodriguez *et al.*, 2016; Schultz *et al.*, 2012). Yet, the in-depth content analysis of the articles leads us suggest that the social selling concept is not a technology-focused practice and the currently emphasized “use” of social media in sales represents only a narrower subset of this deeper going phenomenon. Social selling is ultimately a powerful mean to relate to customers and cultivate relationships (Agnihotri *et al.*, 2012; Andzulis *et al.*, 2012; Trainor, 2012), thus updating the 1990s “relationship selling” philosophy (see Crosby *et al.*, 1990; Jolson, 1997) to match the contemporary digitalized business marketing realm.

Table 2. Definition of ‘social media use in sales’ and ‘social selling’

Concept	Definition	Key elements of each concept
Social media use in sales	Use of “any social interaction-enhancing technology that can be deployed by sales professionals to generate content (e.g. blogs, micro-blogs, wikis) and to develop networks (e.g. social networks, online communities)” (Agnihotri <i>et al.</i> , 2012, p. 334)	1) Technology-centered view, 2) Individual salesperson level, 3) Two key activities: content generation and networks development
Social selling	“An organizational and salesperson level selling approach, which leverages social media besides other channels for acquiring customer information, generating relevant content, and actively engaging in two-way interaction with prospective and existing customers, in order to cultivate individual buyer-seller relationships for both parties benefit”	1) Independent strategic selling approach, 2) Two levels, 3) Three key activities: acquiring customer information, generating relevant content and actively engaging in two-way interaction, 4) Social media as complementary to traditional channels, 5) Focuses on developing relationships with customers

The analysis of the antecedent side demonstrates that social selling efforts among salespersons seem to require specific capabilities and motivations (e.g. Rodriguez *et al.*, 2016; Rossmann and Stei 2015). Many studies have also pointed out that social selling behaviors depend on social influence of

customers and colleagues in this area (see Guesalaga, 2016; Schultz *et al.*, 2012). This indicates that social selling takes place when relevant stakeholders are involved in social media and use digital channels in their work. Interestingly, while substantial research attention has been directed both to organizational and individual salesperson levels in social selling, almost no empirical studies have actually examined the links between these issues apart from some rare exceptions (see Guesalaga, 2016; Rossmann and Stei, 2015). The studied areas of social selling have been connected to various positive outcomes. Still relatively few studies to date have been able to robustly link studied aspects of social selling to 'objective' performance outcomes at salesperson, organizational, or customer levels. More evidence exists on the 'soft outcomes' of B2B social selling, and in this regard, social media usage has been widely found to enhance salespeople's behaviors and capabilities (e.g. Agnihotri *et al.*, 2016; Itani *et al.*, 2017). Interestingly, several studies have also found that the performance outcomes of social media usage are fully mediated by the effects on salesperson's behaviors such as adaptive selling (Itani *et al.*, 2017) and information communication (Agnihotri *et al.*, 2016). Arguably, future studies using activity-based conceptualizations of social selling can deepen and shed new light on these findings.

Although the extant literature has built conceptual basis for social selling research and offered valuable insights on some aspects of the phenomenon, the study area is still nascent. We believe that this study helps developing research in this area towards a more systematic and theoretical direction. Despite the novelty of the topic, very little is known about how B2B selling organizations and salespeople use social media. The introduction of high-rigor constructs could help theory development in selling and digital marketing field. In fact, a look at research in this area shows that notwithstanding the great variety of theories among the studies, the extant empirical research seems to be more data-driven than theory-driven.

Keywords: social media, social selling, digital marketing, business-to-business sales, selling strategy, literature review

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PARTICIPANT CENTRED LEARNING IN MANAGEMENT EDUCATION: THE CASE FOR LEARNING IN TURKEY

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ABSTRACT

Current research into participant centred learning (PCL) has identified that management education is often criticized for being "repositories of multiple frameworks that are not tightly integrated and are aging rapidly" (Mahoney & McGahan, 2007, p. 86). Others have voiced concerns with regard to the lack of effectiveness of strategic management education (Jarzabkowski & Kaplan, 2015; Porter & McKibbin, 1988; Mintzberg & Gosling, 2002). This has led to increasingly frequent calls for more relevant and practically applicable management education (e.g., Bower, 2008; Mintzberg, 2004; Greiner, Bhambri & Cummings, 2003; Rynes, Bartunek & Daft, 2001; Starkey & Madan, 2001). Furthermore, teaching and learning approaches that might work in one educational context may be far more problematic in other contexts (Catalo, Anthaume & Howayda, 2015) and so knowledge transfer has to take the local context into account.

Whilst there is a growing bank of knowledge in the field of the use of case methodologies in management education in Turkey, the aim of this research have been to identify opportunities and barriers to learning in this particular geographical and cultural context. According to the Turkish Ministry of Development 10th Development Plan (2014-2018), one of the main goals of the education system must be to raise individuals with a sense of entrepreneurship and innovation. The plan further suggests that the harmony between the education system and the labour market will be enhanced by equipping people with skills and competences with a lifelong learning perspective by internalizing the entrepreneurship culture. This culture is to be developed by programmes at all levels of the education system to enhance the quality of existing entrepreneurship programs. Many support programmes for business managers and entrepreneurs exist in Turkey, including various modes of managerial training. However, these programmes primarily focus on teaching actual or potential entrepreneurs the functional areas of business, be it marketing, finance, or strategy, without exactly customizing the topics to the entrepreneur's own situation. PCL methods allow the entrepreneur and/or future business managers to learn and investigate within their own context, making the learning more relevant and directly applicable than general theoretical principles. Hence the students' capability of "learning to learn" is enhanced, promoting chances of future organisational survival. This aspect of PCL makes it a valuable addition to curriculum development, tools of

delivery, and adult learning research and applications developed within Faculties of Education in Turkey.

This study presents the results of a study of a convenience sample of over 200 Turkish academics and graduate students who have participated in one or more workshops on teaching with case studies or writing case studies, conducted across Turkey over the time period of February 2016 to November 2017. These higher education scholars represent business schools, university-based technoparks, and other related institutions having a desire to develop their PCL methodologies, totalling about 80 organizations located across all regions of Turkey. The data were collected through an online survey that was announced after each workshop, so the data collection was fully voluntary. The survey included both open and closed questions to provide data to determine potential trends in the adoption and adaptation of the case method in management education, and the barriers and resistors to change, in contrast to more traditional methods of classroom delivery.

According to the preliminary results, some of the key positive attributes of the case method in the Turkish classroom as depicted by the qualitative answers to the survey include:

- The dynamism that cases bring to courses, both for students and instructors
- Making clear links between theory and practice
- The opportunities to ‘jump into the shoes’ of the entrepreneur or the professional
- Its capacity for practice based learning
- The opportunities provided to solve real life problems
- Contribution to analytical thinking
- Enhancing decision making skills
- Promoting and fostering interest and participation in the class

However, some of the most frequently noted barriers to case development in Turkey include:

- They push students to adopt in-depth analytically approaches which are often unfamiliar to the learner
- Difficulties in establishing the collaborative links with firms from which to extract case data
- Lack of experience – on the part of both students and teachers
- There are very limited good cases which focus on Turkey
- Lack of willingness of students to prepare for a case discussion prior to the class
- Students tend to prefer a more directed approach.

The findings demonstrate that there are significant pockets of research in Turkey that are already exploring some of these concepts and methodologies. However, this research also notes a reticence for change in management education, and an unwillingness on the part of the student and the tutor, to

embrace the principles of PCL in the classroom, citing longstanding cultural traditions of directive learning that continue to provide barriers to the adoption of more PCL-type approaches.

Future work will entail building on the exploratory phase of the study to generate theoretical foundations of effective classroom usage of the case study method in management and entrepreneurship education for the Turkish context. The cultural factor in the Turkish education system that encourages a controlled 'spoonfeeding' approach to teaching may be in part due to the power distance in the Turkish society (students versus instructors), and also the cultural tendency towards uncertainty avoidance. In order to tackle such deep set issues, one can conduct a series of experiments in classroom settings in order to identify whether teaching style, salience of the case topic to the audience, group versus individual work, prior preparation, length and type of case study, etc. would aid in overcoming the inertia and resistance towards the case study approach that may be faced in a typical Turkish classroom setting. The next steps of the study aim to lead to testable hypotheses regarding various dimensions of effective teaching and learning with the case study approach toward PCL for future and present managers and entrepreneurs in Turkey.

Keywords: participant centred learning, case method, higher education, Turkey

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LUXURY ON OMNI-CHANNEL RETAIL: A LITERATURE REVIEW APPROACH

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ABSTRACT

The retail customer experience delivery continually grows in complexity warranting firms to consistently perform among disparate touchpoints (Pantano and Viassone, 2015). Thus, a consumer's experience can start with an ad on Instagram, going on to a physical store visit while checking the inventory on his/her smartphone, trying on a garment, checking social media reviews, finding his size is out of stock and hence finalizing a purchase with home-delivery on the store's digital *kyosk*. Indeed, channel integration is claiming a redesign of the entire value-chain focusing on a experiential customer-centric view from logistics to CRM to product co-creation (Ishfaq et al., 2016) across sectors.

The luxury market has been generally slow at adopting a receptive attitude towards internet integration as a tool for attracting customers and delivering the superior experience it is associated with (Kim and Ko, 2010), even though both commercial and academic studies have long been suggesting its potential (Geerts and Veg-Sala, 2011; Okonkwo, 2009). Yet, decreasing sales in traditional markets and increased generalized competition recently coerced firms to integrate robust digital strategies.

Notwithstanding, scholarly research directed at luxury brands' digital strategies or at the crossing of this subject with omni-channel studies is virtually non-existent rendering a remarkable gap between practice and academia still unfulfilled (Larraufie and Kourdoughli, 2014). Exposing this gap, our study intends to contribute to answering the question of how luxury consumers experience channel integration compared to consumers who don't navigate in those type of environments or purchasing habits.

It's not about being merely available online with a disconnected experience from what happens elsewhere along the channel mix. More than any other industry, luxury tends to rely on a fine balance between heritage and innovation even though such *status-quo* regarding historic aspects is challenged more and more by new players on the market. Nevertheless, luxury shoppers need for unique and tailored experiences as well as top-quality products seems persistent, even though that perception of quality may differ from segment to segment. While the best customer experience was mainly

conducted in-store in the past, today, a personalized relationship can hardly persevere without digital engagement tools. What's more, the in-store experience shouldn't be simply redesigned to replicate the digital realm and vice-versa but should strive to combine both possibilities creating a holistic experience.

Despite the blatant growth of electronic commerce, sales digits are hardly the only aspect worthy of attention in a digital strategy regarding omni-channel integration in a luxury context. Indeed, with 6 percent of sales conducted online and other 68 percent having had digital influence along the customer journey (McKinsey and Co., 2015), dismissing the importance of interplay between channels would be deceitful. Especially since, besides top quality standard products, luxury shoppers seek consistent, tailored brand experiences and *perceptual influencers* such as scarcity and social symbolism (Vandergriend, 2016).

Such an occurrence warrants brands to develop the best possible customer service and relationships, being able to trace with accuracy who they are trying to engage, something that once was undoubtedly conducted almost entirely in-store (Fubini, 2016).

That may lead us to think that the key to match current retail expectations (IBM, 2015; Nunes and Cespedes, 2003; McKinsey and Co, 2015; Van Bruggen et al., 2010) is likely to lie in understanding the importance of the increasing number of touchpoints and their preponderance toward both knowing a customer *and* finalizing a purchase for different segments. Indeed, some channels may stand for mere *educational* purposes while others assume a more functional or reassuring intent. On that matter, a study by McKinsey and Co. (2015) suggests an average usage of 9 contact points with a brand before a luxury shopper makes a purchase.

Introducing omni-channel integration will further increase the need for accurate management of multiple channels, technology and people, claiming the articulation of issues such as parity in pricing, product assortment, promotions, product information, return policies, personnel, CRM and logistics in a channel-conscious way.

Even though scientific dialogue has provided interesting studies on how consumers manage their selection and use of channels (Konus, Verhoef and Neslin, 2008), more research is needed regarding segmentation-based multi-channel strategies, where one channel may be exclusive and even grant access to disparate pricing, promotions and products, specifically in the luxury sector where the usual drivers for channel choice (e.g. obtaining discounts) may not apply.

Both small or large luxury brands have a substantial challenge regarding the fine balance of brand's desirability and accessibility among a class-neutral backdrop like the Internet (Geerts and Veg-Sala,

2011; Ng, 2014; Phan, Thomas and Heine, 2011). While the fulfilment challenge for some retailers is not new given they have been taking orders via catalogs for decades, omni-channel retailing potentially entails an explosive growth in order volumes and complexity of transactions (Ishfaq et al., 2016) hence representing a call for general optimization redesign for luxury players used to a one or two-way transaction flow.

Keywords: *Luxury Brand management, Omni-channel, Luxury Retail, E-commerce*

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THE FUTURE OF THE GREEK BANKS THROUGH THE CHALLENGES OF AN AGEING POPULATION, IMMIGRATION AND TECHNOLOGICAL TRANSITION

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ABSTRACT

The Greek banking system is called to deal with three major demographic shifts that have a direct impact on its sustainability. In this context, the country's ageing population and slow-paced technological transition constitute negative parameters that have an adverse effect on the stability and growth of the Greek banks in today's globalized economic landscape. In this assignment, it is primarily attempted to investigate the impact of demographic ageing of the population that fuels the Greek economy, on the liquidity, specifically, of the domestic banking system. Therefore, the theoretical background of the research study is based on the Life-Cycle Hypothesis (*Modigliani & Ando, 1963*), in which individuals share their consumption and savings behaviour over their lifetime, doing so by increasing savings when earning high incomes and dis-saving when they are retired. The selected empirical approach is followed by applying the method of Multiple Linear Regression to simple time series and panel data referring to the period from 1998 to 2016, which outline the intertemporal character of the phenomenon. Moreover, a comparative exploration takes place of the analysis of data derived from the Greek economy, versus the corresponding data displayed by the Eurozone states, as well as the individual results referring to the global economic crisis of 2008. The statistical findings of the investigation show a mixed picture, demonstrating that demographic ageing can actually affect the banking system of a specific state, especially when the ageing phenomenon is strong or further aggravated by low productivity, which is the case with Greece and other countries of Southern Europe. Whereas, in countries where aging progresses smoothly or in countries where there is a strong demographic aging with simultaneous presence of high productivity and competitiveness indicators, the pressures on the banking system liquidity are weak. On top of that, an investigation takes place in terms of the challenges that emerge as a result of both the population's ongoing shift towards a digital society and the digital transformation of the financial sector, as well as the substantial flight of human resources and channeling of capital resources abroad, which followed the recent economic crisis.

Keywords: Demographic Ageing, Banking System, Liquidity, Loans over Deposits, Immigration, Technological Progress, Greece, Eurozone

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SHARED SERVICE CENTRE IN ACCOUNTING IN MEDIUM-SIZED COMPANIES: A QUALITATIVE EMPIRICAL STUDY

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ABSTRACT

FUNDAMENTALS AND RESEARCH QUESTION

The basic idea of shared service centres is to bundle corporate group functions like accounting, IT or HR mainly in order to achieve efficiency and quality improvements goals. Because of different content-related designs, there is no single understanding of this term (Sterzenbach, 2010).

Out of literature review Schulz and Brenner (2010) summarize the characteristics associated with shared service centres: consolidation and standardization of processes within the group, delivery of support processes, cost cutting, focus on internal customers, alignment with external customers, separated organizational unit and operation like a business (e.g. outsourced company or profit centre). Basically, four potential implementation target dimensions can be distinguished (Bader, 2008; Kagelmann, 2001; Weber et al., 2012): financial, process-related, employee-related and customer-related. A big number of large companies worldwide have profited from the benefits derived from shared service centers during the last decades. According to the study of Reimann and Möller (2013), 74% of the 102 companies with the highest turnover in Germany, Austria and Switzerland run a shared service centre. Due to its success, this approach has been also gaining increasing attention within medium-sized companies, which steadily start to implement shared service centres (SSC). As the study of Reimann and Wolff (2014) shows, 53% of 121 respondent mid-sized companies in Germany already run a SSC. Another 7% of this sample plans to introduce one in the future. Despite of the increasing attention in medium-sized companies, there is only one study that scrutinized SSC for medium-sized companies (Reimann and Wolff, 2014). The focus of this study was the degree of implementation in Germany. Up to now there is no study that describes how the companies in the medium-sized sector actually design their SSC.

In order to bridge this gap, the purpose of our study is to explore the design, the implementation and the control instruments of an accounting-related SSC in medium-sized companies of Baden-Württemberg.

METHODOLOGY

Since there is a lack of a general theory for the topic an explorative qualitative research design fits best here. Based on literature and existing studies we used semi-structured interviews, which were conducted with eight experts from different companies and two business consultants. The advantage of this approach is that the interviewer can lead the interview flexible and has the possibility to ask in-depth questions, if necessary (Bortz and Döring, 2016). This is needed to get a deeper understanding of the complex topic and to gain new knowledge. We decided to include companies with annual revenues between 200 million and 7.000 million Euros and at least 1.000 employees. The generated data was processed following the qualitative content analysis of Gläser and Laudel (2010).

MAIN FINDINGS

Out of the transcription and analysis there are three major areas of findings:

- The company specific understanding of a SSC and its goals of it determine the framework of the design. Based on that, the centre type, the location and the migrating processes can be derived. The legal and economic structure of the SSC strongly depends on its degree of maturity. As the study shows, many of the SSC are relatively small and still at the beginning of their development. Binding contracts like service level agreements, where responsibilities, products, transfer prices and quality of services are defined, can help to avoid discussions and difficulties in the operative business.
- There seems to be no generic approach on migration, this is as well very company-specific. Change Management and existing ERP-system are considered to be key elements for the implementation of a SSC. Further implementation challenges consist mainly of cultural challenges, work overload for employees and bureaucratic hurdles.
- Customer satisfaction measurement represents the primary management control instrument within the companies. To measure the competitiveness of a company, benchmarking can be applied to measure the company's efficiency against competitors. To create a framework for continuous improvements the definition and application of KPIs can be very useful.

PRACTICAL IMPLICATIONS:

The outcome of this study shows results that are useful for companies who want to implement a SSC in the future as well as basic ideas to develop a generic framework for the design, implementation and control from an academic perspective. Further research could be done by including a higher number

of participating companies to develop the results gained in our study towards a theory that could be checked by quantitative research instruments afterward.

Keywords : Shared Service Centre, medium-sized companies, accounting, management control, cost, efficiency

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SOCIAL MEDIA IMPACT ON NPO BRAND EQUITY: CONCEPTUALIZING THE TRENDS AND PROSPECTS

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ABSTRACT

Extensive research has repeatedly acknowledged the link between traditional and digital marketing communication tools and branding performance (Berthon, et al., 2012; Bruhn et al., 2012; Hennig-Thurau et al., 2010; Kapoor, et al., 2013; Keller, 2009). Moreover, social media, the milestone of Web 2.0 era, have definitely introduced a new revolutionary status quo of both corporate and personal communication by emerging new notions such as "produser" and "co-creation" both in For Profit Organizations (henceforth, FPOs) (Berthon, et al., 2012; Bruhn et al., 2012; Hennig-Thurau et al., 2010; Kapoor, et al., 2013; Keller, 2009; (Belenioti, 2015, 2017; Belenioti, Andronikidis and Vassiliadis, 2015) and Non Profit Organizations (henceforth NPOs) context. In light of these recent trends, a considerable literature has grown up around the theme of both e- marketing tools (Of, 2002; Hede, 2005; Jensen, 2007; Bernhard, María & Chapter, 2009; Milano, 2011; Lange-Faria & Elliot, 2012; Lim, Chung & Weaver, 2012; Vassiliadis, Fotiadis & Piper, 2013) and social media impact on destination branding, as well (Buhalis & Inversini, 2014; Zeng & Gerritsen, 2014; Wozniak, Stangl & Liebrich, 2016; Xu, Buhalis & Weber, 2017). In the same vein, social media is becoming a key aspect for museums' sustainability and successful performance given its multidimensional affects both at communicational, educational and promotional level (Vassiliadis & Belenioti, 2015). Despite this growing importance, there is still very little scientific understanding of social media influence on brand equity (Bruhn et al., 2012; Langaro et al., 2015 ; Kuvykaite & Piligrimiene 2014 ; Belenioti, 2015; Belenioti et al., 2015; Vassiliadis & Belenioti, 2015 ; Belenioti & Vassiliadis 2016). Precisely, within NPOs sector few studies have investigated the impact of social media on brand equity (Vassiliadis & Belenioti, 2015; Belenioti & Vassiliadis, 2017; Belenioti, Garane & Vassiliadis, 2017). Following the call within FPOs and NPOs sector (Barreda et al. 2015 ; Vassiliadis & Belenioti, 2015; Belenioti & Vassiliadis, 2016; Belenioti, Tsourvakas & Vassiliadis, 2016), and having already conceptualized, (1) first, the use of social media within museums (Vassiliadis & Belenioti, 2015), and (2) second, the relationship between social media impact and NPOs' brand equity (Belenioti & Vassiliadis, 2017), this paper follows now by delving into merely on the cultural NPOs' reality. Through a literature review analysis, the study introduces a new conceptual framework of social media impact on museums' branding. The present research explores, for the first time, the effects of social media use on museums'

brand components by introducing an original and innovative conceptual model. The findings should make an important contribution to multidisciplinary research interests both to communication, museum or tourism practitioners and marketing, communication, museum scholars.

Keywords: social media, digital branding, tourism destination branding, cultural tourism, museums branding, NPOs, tourism hospitality management

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THE BUSINESS ARMONICO™: A NEW MODEL TO GO OVER THE BALANCED SCORECARD

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ABSTRACT

PURPOSE

Technology's and industry's competitive world have changed dramatically in the last century (Kravets, 2017; Hyun Park et al., 2017). The increasing competition of markets allows firms to adopt new strategies to maintain their competitive power and interest (Saeidi et al., 2015) on the market. As a matter of fact, strategic planning in organizations, both in big companies and in small and medium enterprises (SMEs), has had a direct impact on business performance and business evaluation (Wolf and Floyd, 2017). This theoretical model was devised by Kaplan and Norton in 1992 and refined in their further publications (Kaplan and Norton, 1993; 1996a; 1996b; 2000; 2001), describing the Balanced Scorecard (BSC) as a performance measurement characterizing by using both financial and non-financial measurement to evaluate all aspect of an organization's operations in a cause-and-effect fashion to ensure that all of them are linked with the organization's overall objectives (Weygandt, 2012). Despite the BSC gives great results in large companies, in SMEs is not largely adopted yet (Tapinos et al., 2011; Malagueño et al., 2017). The main reason of this is the scares empirical evidence of effects through only a few case studies (Malagueño et al., 2017). The aim of the present paper is to explore how this new Business Performance Measurement Systems (PMS) could give an added value to all the SMEs and start-ups in the Italian area, and in particular, how the Business Armonico™ covers the gap existing in the literature review referring the use of a performance measurement made for Small and Medium Enterprises. To analysze deeper these aspects the present work has the follow research question:

QR: How the Business Armonico™ could give a performance and team measurement for Italian SMEs?

So, this study has allowed authors to implement some aspects of the model as the communication between workers and chiefs, the daily and weekly planning and the margin contribution on decision making, going over the classical model of the BSC.

METHODOLOGY AND METHODS

Starting from a deep analysis of the international literature review on performance measures, in particular those applied in the SMEs, the research has been conducted on a sample of Piedmont companies, which have applied this method in the various steps, thanks to the evaluation of performance with a particular interest for SMEs. Data gathered are presented in the exploratory single case study, because in single case theory is more parsimonious, generalizable (Eisenhardt and Graebner, 2007) and its hypotheses are very easy to test and measure (Eisenhardt, 1989).

In this context the Business Armonico TM comes from some exploratory analyzes conducted by ProgesiaTM, which saw the involvement of some entrepreneurs. What has emerged is the disorganized and unbalanced way of working to the four strategic areas of investigation, i.e. innovation, marketing, finance and management. These areas were managed in a disconnected way and the entrepreneurs normally intervened on a single strategic area when this one arrived in an emergency. After two more phases of development and experimentation, the management model of the Business Armonico TM was devised, designed to help SMEs to innovate themselves, maintaining internal balance with varying external conditions. The connection between each of the four macro strategic areas creates further eight micro business strategic areas, i.e. leadership, market surveys, strategies, negotiation and sales, cash flow, turnover, personnel and time management. At this point the company has two different objectives to be achieved in a synergistic way: (a) Performance Objectives, (b) Connection Objectives.

The first one is aimed at maintaining the corporate balance of the strategic areas at the level of maximum potential that can be expressed by the company, while the second one is aimed at achieving results in terms of sales and innovation as a connecting point between corporate action and market needs. The management model of the Business Armonico TM is applied in the business realities through a specific intervention moment called "RADICE", structured in six modules in which the company is assisted in the analysis of the 168 strategic points, examined within the Executive Summary, of the Overview of the Interior, the External Overview, the Action Line and the Performance Objectives, all reported in the final Balancing and in the Operating Plan of the Connection Objectives. Specifically, Balancing is a document prepared by the consultant who followed the company in the RADICE intervention, where the necessary data were collected to evaluate the current imbalance / balance of the company compared to 1000 in 1000. The state of imbalance / balancing offers the opportunity to detect the critical issues and the problems to process and effectively define the intervention strategy oriented towards the harmonious growth.

FINDINGS

This study explores critically the effects of the Business Armonico TM towards SMEs. Results show the significance of this model in the implementation of the BSC and the returns in term of revenues by the SMEs, which have englobed this new model in their strategy.

LIMITATIONS

Despite these important implications, this paper presents some limitations, which could be implemented in further researches. First of all, even if the case study method is very useful to give a deeper and very testable analysis of theory (Eisenhardt and Graebner, 2007), it has some weaknesses due to the difficulty to make a generalization of contents and to describe moreover idiosyncratic phenomena (Eisenhardt, 1989). Secondly, a quantitative analysis could be carried out to investigate which variables could be influenced by this model and the possible interrelation and dependency by them.

ORIGINALITY

According to Authors', the originality of this research is that the Business Armonico TM could go over the model of the BSC, thanks to its adaptability to all type of companies and its implementations in team communication.

PRACTICAL IMPLICATIONS

Moreover, it brings very important theoretical and managerial implications to SMEs and to academical point of view. First of all, as just said, it goes over the theoretical model of the Balanced scorecard created in 1992 by Kaplan and Norton. As a matter of fact, it was used as a strategy-focused approach to performance management, including strategic objectives and performance measures in a hierarchy of areas, such as financial, customer, internal processes, and innovation. The strategic objectives and performance measures within the balanced scorecard framework are derived from the vision and strategy of the organization (Frigo and Mark, 2012). The Business ArmonicoTM improve this model, making a deeper analysis of all the enterprises' areas (Innovation, Finance, Marketing, Management), including eight new sub-areas, that are leadership, market surveys, strategies, negotiation and sales, cash flow, turnover, personnel and time management. Managerial implications are due to the questionnaire and interviews ProgesiaTM has had with enterprises, which have followed the different steps of this models (Mastermind, Radice, Elite). Indeed, these ones have been an increase on the contribution margin and in their revenues.

Keywords: Business model; Balanced scorecard; SMEs; Performance; Piedmont; Innovation.

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“SUSTAINABLE” REPUTATIONAL REPAIR STRATEGIES IN RESTATING POLLUTING COMPANIES

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ABSTRACT

1. INTRODUCTION

Corporate reputation is not a static quality (Rhee and Kim, 2012), as business misconduct often causes reputational penalties (Karpoff, 2012; Pfarrer et al., 2008). An accounting restatement, which is a form of business misconduct, results from a violation of the appropriate application of accounting practices and reflects managers' incentive to obtain short-term benefits (Efendi et al., 2007). While numerous scholars have focused their attention on the adverse implications caused by financial restatement (Palmrose et al., 2004; Graham et al., 2008; Hribar & Jenkins, 2004), relatively little research examined how firm might recover from a loss in reputation (Chakravarthy et al., 2014). Drawing upon the behavioural theory on the reputation repair (Rhee and Kim, 2012), we formulate and test our hypotheses on strategical responses to reputational damaging restatements in environmentally sensitive industries.

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Corporate reputation represents the stakeholders' recognition of a firm in relation to the quality of its capabilities and outputs (Pfarrer et al., 2010; Rindova et al., 2005). When a firm incurs in a reputation-damaging event, the stakeholders' expectations on the firm's ability to fulfil its commitments results undermined, with negative economic consequences for the company such as the increasing of financing and transacting costs and/or lost sales (Chakravarthy et al., 2014). To avoid or minimise such negative effects, companies engage in corporate strategies instrumental to recover their reputation. According to Rhee and Kim (2012), the process underlying the choice of the reputation repair strategy can be assimilated to a problem-solving process where contextual factors surrounding an organization occur in affecting the strategic response, especially in the step of searching for the most appropriate solution. To restore the stakeholders trust, managers might be thus incentivized to shift the level of attention on other reputational dimensions relevant to stakeholders (Elsbach and Kramer, 1996; Rhee and Hadwick, 2011). argue and show that the relevance of social performances in influencing the corporate reputation is strictly linked to the nature of the business activity. Particularly, companies

operating in polluting industries might feel motivated to preserve a positive organizational identity by shifting the level of attention on their green reputation (Brammer and Pavelin, 2006). Through the implementation of a cleaner production and/or consumption process, a firm also positively shapes the impressions of stakeholders about the organizational ability to create value – directly or indirectly – for them, thereby contributing to improve the overall corporate reputation (Dangelico, 2015; Porter and Kramer, 2006; Tang et al., 2012). Based on the above arguments, we formulated the following hypothesis:

H1: Firms operating in polluting industries ameliorate their environmental conduct in the aftermath of an accounting restatement.

A stream of literature evidences that companies are subjected to a greater damage to the financial dimension of reputation when restatement is more severe (Palmrose et al., 2004; Albring et al., 2013). In their reputational repair model, Rhee and Kim (2012) argue that the seriousness of the damaging event might lead the firm to a greater commitment in the strategic response for the reputational restoring. Under this perspective, although all operating in environmentally sensitive industries, restating firms might be incentivized to a different commitment degree in the environmental protection field in dependence of the severity of the restatement. Accordingly, we formulated the following hypothesis:

H2: Firms in environmentally sensitive sectors differently ameliorate their environmental conduct in dependence of the restatement severity.

3. EMPIRICAL METHODOLOGY AND SAMPLE SELECTION

For a comprehensive check of our hypotheses, we carried out a regression analysis on a sample of restating firms over the period 2006-2014 from 12 different countries mandatorily adopting IFRS since at least December 31, 2005 (Daske et al., 2008). We also controlling for a matched sample of non-restating firms operating in the same country of stock exchange, industry, and with similar size, with a total of 209 firm-year observations. For all regressions, we utilized robust standard errors to correct for heteroscedasticity (White, 1980), as well as firm and year clustering. We adopted ordinary least squares procedure to estimate our two equations (for our two hypotheses). Moreover, based on prior research regarding the determinants of environmental performance (Walls et al., 2012; Lys et al., 2015), we included in our two equations several control variables. Financial reporting information was gathered from the DataStream database by Thomson Reuters.

4. RESULTS AND DISCUSSIONS

Our results give evidence on the relevance of the multidimensional nature of corporate reputation in the reputation rebuilding process. Particularly, we find that the damage to financial credibility arising from a restatement in companies belonging to an environmentally sensitive sector is followed by a greater concern for the green reputation, significantly more than the matched (non-restating) companies. Consistent with the Rhee and Valdez (2009) arguments, such strategic behaviour by restating firms thus suggests that the level of difficulty in restoring a certain damaged reputational dimension motivates managers to seek strategic responses by relying on the other relevant reputational domains. It appears that being aware of the nature of their activity, restating companies operating in environmentally sensitive industries attempt to preserve the overall reputation by shifting the level of attention on the green reputation through a greater environmental pro-activeness. However, in contrast with our second hypothesis, we find no statistical evidence that restating firms incurred in more severe accounting restatement take more steps to improve green reputation. These results contrast with previous evidence highlighting that firm's efforts to restore its reputation depend on the severity of the reputational damage (Gomulya & Boeker, 2014). Probably, the motivations of the environmental engagement of environmentally sensitive companies are primarily related to their need to reverse the negative impact caused by the public revelation of accounting restatement *per se*, independently of the severity of financial misconduct.

5. CONCLUSIONS

Contributing to the behavioural theory of reputation repair (Rhee and Valdez, 2009; Rhee and Kim, 2012), we show that polluting firms recover from a loss to their financial reputation by diverting stakeholders' attention towards the environmental field. Additionally, we contribute to the growing empirical literature on corporate environmental responsibility in polluting industries (Kim et al, forthcoming; del Mar Miras-Rodríguez et al., 2015; Tang et al., 2012; Lokuwaduge and Heenetigala, 2017) by showing that these firms use ERP levers (Porter and Kramer, 2006; Porter and Kramer, 2011) to rebuild their reputations in the post-restatement period.

Keywords: restatement; environmentally responsible practices; behavioural theory of reputation repair; key stakeholders.

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EXTENDED ABSTRACT - A FRAMEWORK FOR ENGAGING CUSTOMERS IN FOREIGN MARKET

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ABSTRACT

PURPOSE OF THE PAPER

The massification of social media gives international businesses and marketers endless opportunities to create social networks as a means of creating long-lasting relationships with consumers. Little is known about firm's role in engaging with their customers in social media, when firms are trying to reach foreign markets. Consequently, this study aims to examine management perspectives in engaging customers in foreign market

LITERATURE REVIEW

Customer brand engagement and electronic customer brand engagement

Customer brand engagement (CBE) is defined as 'the level of an individual customer's motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity in direct brand interactions' (Hollebeek, 2011, p.790). Electronic consumer-brand engagement (e-CBE) is the natural adaptation of the concept of CBE to the web, but has, in fact, gained more interest since the up rise of the internet and social networking (Sashi, 2012). Mollen & Wilson, (2010) suggested that the online engagement enables customers to lead an active relationship with the brand. Companies now perceive customers as their allies in developing the product, defending brand and creating value (Hassan & Casaló Ariño, 2016; Prahalad & Ramaswamy, 2004).

Social network and cultural orientation

Social media has provided opportunities to businesses in developing close relationships with customers leading to customers' engagement (Devereux, Melewar, & Foroudi, 2017; Gorry & Westbrook, 2011; Hudson & Thal, 2013) as it influences loyalty (Zheng, Cheung, Lee, & Liang, 2015), satisfaction (Thaichon & Quach, 2015) and assists in expanding the markets (Armstrong & Hagel, 2000; Mariussen & Ndlovu, 2012). Social media permits a system of two-way many-to-many communication where consumers do it all: besides connecting, they are responsible for the creation, production and share media content in a way never seen before (Hoffman & Daugherty, 2013). A clear

and main orientation towards social exchange and engagement has made social networking (SNS) the cause of the transformation in the way consumers not only interact with their pairs, but also get product-related information and make purchase decisions (Chu & Choi, 2011). Cultural communication is the exchange of information between two distinct groups who share the same environment (Barnett & Sung, 2005; Sagiv & Schwartz, 2007). Prior studies have acknowledged the consideration of cultural adaption in communication. Culture is a dynamic process, practically working as an engine to the development of communication (Lee & Choi, 2005). For instance, company's practice of replicating communication in a standardized view (Berthon, Pitt, Plangger, & Shapiro, 2012) may lead negative effects on consumer's self-evaluation. Thus, it is suggested that engaging is all about creating a relationship. It is possible to understand how social media has facilitated this process and how culture will influence this creation.

Therefore, three main topics appear as the biggest concerns: market adaptation, usefulness of social media and the creation of engagement. This study seeks to explore firm's role in engaging with their customers in social media when reaching foreign markets.

METHODOLOGY

In depth interviews of six Portuguese firms was conducted to gain insights on following questions –

- How do firms through social networking platform connect with consumers in foreign market?
- How these social network accounts are are managed?
- How are customer satisfaction, retention, commitment and advocacy measured?

Each interview lasted an average of half an hour and all informants were interviewed only once. The interviews were recorded with prior authorization. To assure the accuracy of the transcriptions, one of the authors has checked all recordings and transcriptions.

Table 1 Sources of the Interview Data

Firm	Interviewees
Concept Bags	Diana Pinto – Account & Project Developer
Canal180	João Vasconcelos; Nuno Alves – CEO & Content Director
Onebiz	António Godinho – co-CEO
Fruut	Filipe Simões – CEO
Unicer	Rita Lago – Interactive Marketing Manager
Mymaga	Nádia Leal Cruz – PR and Communication Manager

Cases were analyzed based on the method of analytic deduction. Transcripts were organized using NVivo 10 software package that is a specialized for qualitative analysis. It facilitated the process of coding, querying and comparison during the data analysis. Data was coded according to typical content analysis procedures. Firstly, all data were coded into seven categories as in the proposed theoretical model - (1) online and offline consumer connection, (2) social media interaction, (3) consumer's overall satisfaction, (4) consumer's retention, (5) consumer's commitment, (6) advocacy, (7) engagement, (8) social media importance and (9) cultural behaviour.

FINDINGS

Research findings on the relationships among the variables and the dynamic aspects of digital strategy are presented case by case in logic of proposition context.

Proposition 1: The digital strategy of a firm is positively related to a complete adaptation of the same strategy to each market.

Across the six interview cases, this study has identified the relationship between the digital strategy and its adaptation towards a market. Thus, considering the totality of the opinions, the concernment over the adaptation of content to markets seems quite evident, regardless the main positions of the companies.

Proposition 2: The creation of engagement is positively related to social media.

The usefulness of social media in the process of creating brand engagement is transversal to all informants, but the usefulness of social media inside their firms is not universally understood.

Proposition 3: The Customer Engagement Cycle goes beyond theory: firms do make their way from interaction to engagement

Engagement appears in the middle of the process, suggesting that even being extensively referred during the interviews, it is not considered as an end itself. Hence, the practical implications of the Customer Engagement Cycle are not as strictly followed as in the theoretical scenario.

The propositions are summarized in a framework form:



ORIGINALITY AND VALUE

This paper explores the relevance of social media in the Portuguese firms and the construction of electronic customer brand engagement (eCBE) strategy while approaching foreign market. This

paper makes important contribution to the academic knowledge by proposing that only engaged customers are loyal and advocate the brand.

LIMITATIONS

This study has focused itself exclusively in Portuguese firms so the risk of cultural biases cannot be excluded.

THEORETICAL AND PRACTICAL IMPLICATIONS

Our study provides management perspectives of firms towards the connecting customers in foreign market.

Keywords: Customer brand engagement, electronic customer brand management, Social media, Marketing strategy, international management

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To be provided under request.

THE IMPACT OF PERCEIVED JUSTICE ON COMPLAINT PROCESS: AND SO WHAT?

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ABSTRACT

Although the marketing literature has seen a great deal of interest in the study of complaints (Blodgett et al., 1997; Maxham & Netemeyer, 2002; Del Río-Lanza et al., 2009; Brock et al., 2013; Yilmaz et al., 2016), little is yet known of the influence of complaint management on brand trust and its behavioral consequences from the consumer perspective. Therefore, the purpose of this paper is to identify the impact of perceived justice on brand trust and what are the resulting consequences of this in the context of a complaint process. Thus, the following research questions will be answered: Which component of perceived justice has the greatest impact on brand trust? What is the impact of brand trust on consumer behavioral variables?

The literature review have analysed the satisfaction arising from the complaints management (Tax et al., 1998; Smith et al., 1999; Maxham & Netemeyer, 2002a e 2002b; Maxham & Netemeyer, 2003; Homburg & Fürst, 2005; Gohary et al., 2016). Additionally, the three components of perceived justice, ie, distributive justice, procedural justice and inter-judicial justice are possibly among the most importante consumer trust determinants (Chiu et al., 2009). Specifically, H1a: The distributive justice dimension of perceived justice has a positive impact on brand trust; H1b: The procedural justice dimension of perceived justice has a positive impact on brand trust; H1c: The interactive justice dimension of perceived justice has a positive impact on brand trust. Some authors (Koschate-Fischer & Gärtner, 2015), have identified brand commitment, and loyalty as outcomes of brand confidence. This is also studied by Chaudhuri and Holbrook (2001) and Delgado-Ballester et al. (2003). A successful complaint management can bring the consumer brand relationship closer and stronger (Gustafsson, 2009). All dimensions of justice seem to be positively associated with loyalty (DeWitt et al., 2008). Not only the brand attraction, as a result of trust, can translate into the intention to disseminate positive word of mouth (WOM), but also perceived fairness is referred to in the literature as possibly leading to positive WOM disclosure (Davidow, 2003). The positive perception of the recovery efforts made fosters confidence which then translates into positive WOM intent on the experiences experienced by consumers (Lii et al., 2012). Brand commitment is related to the perception of change costs. Moreover, in an effective complaint management process, the fact that the recovery system is excellent is crucial to deter consumers who have been disappointed by the organization of switching supplier (Lovelock & Wirtz, 2016). Moreover, at the level of interactive justice, effective perceived communication

instigates perceived Confidence, which in turn leads to increased perceived change costs (Yen et al., 2011). Hence, Mattila et al. (2014) shows that it is only by observing a fair, targeted recovery for the perceived victim-consumer that a positive impact on consumer loyalty can be achieved. Additionally, the consumer perception with which consumers stay at the end of the process, if satisfied, makes them trust the brand and generate positive WOM (Ding & Lii, 2016). In fact, studies in the area indicate that effective recoveries can lead consumers to WOM once their processes have translated into satisfaction and purchase intention (Maxham, 2001; Gohary et al., 2016). Therefore, H2: Brand trust has a positive impact on loyalty; H3: Brand trust has a positive impact on the positive WOM; H4: Brand trust has a positive impact on the change costs; H5: Loyalty has a positive impact on the positive WOM. Data collection was done using a structured online questionnaire to final consumers. All the respondents must have already made a complaint (filter question). Its measurement was made using Likert scale of 7 points, where 1 corresponded to "strongly disagree" and 7 corresponding to "strongly agree." The Distributive, Procedural and Interactive perceived justice was measured using Maxham & Netemeyer's (2002b) scale with 4 items each one, the Brand Trust was measured using the Delgado-Ballester et al. (2003) scale with 8 items, the Costs Change was adapted from Wong (2011) and Lam et al. (2004) scale with 4 items, the Loyalty was measured using the Fürst & Homburg (2005) scale with 5 items, the Word of Mouth was measured using Maxham & Netemeyer's (2002b) scale with 4 items. Data were analyzed using Structural Equation Modeling. A total of 219 valid questionnaires were collected. The survey questions were tested through confirmatory factor analysis (CFA). Because we used established constructs exploratory factor analysis is not relevant here. CFA was used to validate the measurement models consisting of six constructs. The measurement model shows a reasonable fit when RMSEA=.073 and the CFI=.946, above 0.90 (Hair et al., 2010). Validation of the latent constructs is evaluated by convergent validity. All composite reliabilities are greater than the minimum criteria of 0.70 (Nunnally and Bernstein, 1994). The average variance extracted (AVE) provides evidence of overall convergent validity of each construct and exceed 0.50 (Fornell and Larcker, 1981). The discriminant validity was validated to all constructs. As a result of testing the structural equation model, the model generated the following statistics: $\chi^2 / gl = 2.155$; CFI = 0.946, TLI = 0.940, NFI = 0.904 and RMSEA = 0.073. The model has a very good fit. Additionally, With the same variables used in the SEM, and based on regression models, this study related directly brand trust (bt) with the three types of justice considered. The three types of justice are statistically significant (p-values less than 1%; in statistical inference, robust estimators were used) and since the coefficient estimates are of similar magnitude (and the variables are expressed in the same scale of values) it can be concluded that the importance of each type of justice in brand trust are equivalent. It was also analyzed the importance that brand trust has in worth of mouth, loyalty and costs of change.

Brand trust is particularly important in the first two cases (significance levels less than 0.1%). Once again, because the scales are the same, a variation of 1 unit in brand trust has a repercussion of magnitude almost equal in the variation in word of mouth and only slightly less than 1 in loyalty. Brand trust thus seems to play a decisive role in those two variables. Regarding the change costs, the influence of brand trust is still clearly significant, but with a much lower magnitude. Regarding the influence of the main socio-economic characteristics of consumers on brand trust, the only one that appears statistically significant is the occupation. Age is significant at a significance level close to 9%, the signal obtained for the coefficient being negative mean that as the age of the consumer increases, brand trust tend to decrease, everything else constant.

The hypotheses formulated were all most validated except the H1a and H3. The construct procedural Justice is the most important determinant of the brand trust. In turn, it can be seen that Brand Trust has a greater impact on the Loyalty variable. Regarding WOM, it is the Loyalty variable that has the most impact on this construct.

Perceived justice is a huge concept, on behalf of the complaint management context. A proposal of a structural equation modelling (SEM) to assess the outcomes of Perceived Justice was advanced and validated it in the context of marketing B to C. This study represents a contribution to the marketing research. Firstly, it points out the critical variables considered as determinants of the Brand Trust in a new perspective, missing in the previous literature review. Secondly, the results consolidate the importance of perceived justice as a crucial construct in the long-term brand consumer relationship. Lastly, it provide key managerial insights answering how brand managers could capitalise brand trust through complaints process management.

Keywords: Complaint Management, Perceived Justice, Brand Trust, Behavior Consumer, Loyalty, Change Costs, Word of Mouth, SEM

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INNOVATIVE RESEARCH GROUPS: THE ROLE OF TRANSACTIVE MEMORY SYSTEM

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ABSTRACT

Increasing innovative performance is currently a crucial element in the development of organizational productivity and competitiveness (Verdu-Jover et al., 2017). To improve performance and differentiation, the research must be innovative, and this need has led to the concept of innovative university research (IUR). IUR can be defined as the generation of pioneering research by university groups. Our study analyzes descriptive variables of behavior that may be related to TMS and IUR: trust, collective mind (CM), and network ties (NT). The main goal of this paper is thus to analyze how the variables TRUST, CM, and NT are related to IUR, and whether the TMS mediates the relationships of these variables to IUR in the university. The TMS is currently defined as the cooperative work that occurs between members of a group to learn, remember, and communicate relevant knowledge about the group (Kotlarsky et al., 2015). Successful functioning of a TMS depends on the formation of many transactive memory structures, that is, on each member of the group connecting to the others' knowledge within the system itself. It is in these cognitive representations that TRUST, CM, and NT act. People characterized by TRUST are more willing to give useful knowledge (Dolfsma and Eijk, 2016) and more receptive to listening to another's knowledge —actions that facilitate credibility and coordination.

Hypothesis 1: TRUST is positively related to the TMS in university research groups.

When members recognize their role and contribution in these interrelations, their activities are more likely to be integrated and coordinated with other members' activities. They will depend on each other and perform tasks as a united group (Dougherty and Takacs, 2004) and encouraging development of credibility and coordination in the TMS.

Hypothesis 2: CM is positively related to the TMS in university research groups.

Researchers represent a specific type of networked worker, one who collaborates explicitly and exclusively (Lungeanu and Contractor, 2015). Being tied into a network enables team members to feel comfortable working with each other and fosters development of interpersonal cohesion characterized by the resulting social interaction.

Hypothesis 3: NT are positively related to the TMS in university research groups.

The TMS facilitates exchange and diffusion of tacit information through shared memory, helping to promote effective use of human resources and reduce individual responsibility for cognitive development. Key mechanisms for IUR also emerge in groups that have developed a TMS and can thus coordinate interactions more effectively (Fan et al., 2016).

Hypothesis 4: TMS is positively related to IUR in university research groups.

TMS mediates the relation between TRUST and IUR by making the individuals' attitudes, and behavior operative in the context of the team (Fan et al., 2016), thereby encouraging IUR. The collective thinking that emerges from CM attempts to unite all members of a group through the goal of constructing knowledge. Such a situation benefits IUR because CM causes each individual mind to work independently of its total capability (Brown, 2015). Finally, we believe that the TMS mediates the relationship between NT and IUR. The characteristics of the TMS enable it to increase the unity of existing networks and produces a situation in which the work group's members feel comfortable.

Hypothesis 5: The TMS mediates the positive relationship between TRUST and IUR.

Hypothesis 6: The TMS mediates the positive relationship between CM and IUR.

Hypothesis 7: The TMS mediates the positive relationship between NT and IUR.

RESEARCH METHODOLOGY

We selected a sample of 3,000 groups through simple random sampling. The data were collected by emailing a questionnaire. We ultimately analyzed 257 questionnaires. All scales were accompanied by a 7-category Likert scale. Nonetheless, we analyzed the possibility of common method variance. We subjected the measurement scales to a validation process. Figure 1 presents the relationships established and the results obtained, including the direct and indirect effects. We used EQS 6.1 software to perform structural equations modelling (SEM).

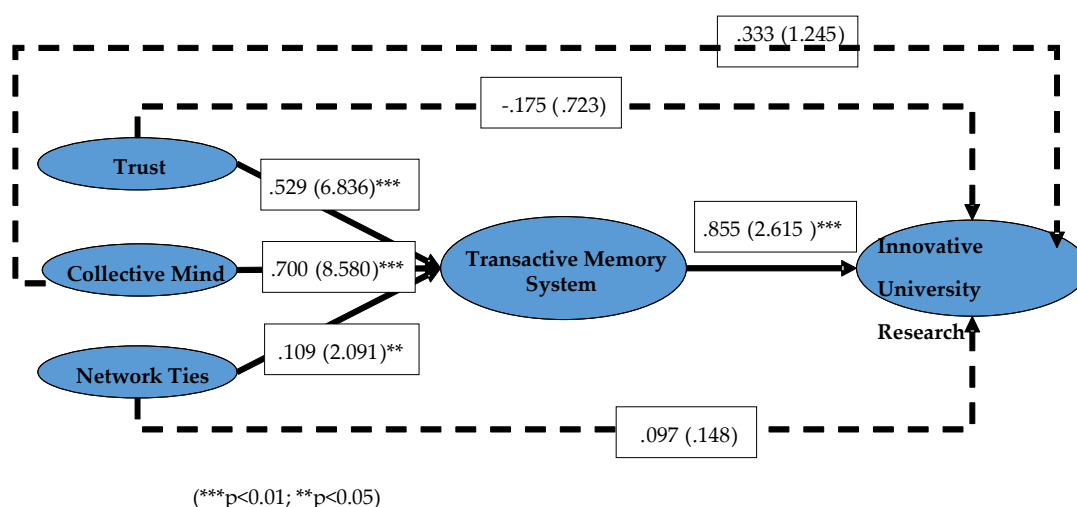


Figure 1. Structural model

DISCUSSION AND CONCLUSIONS

The empirical findings indicate that the three antecedents studied play a considerable role in facilitating the TMS, which is positively related to IUR in university research groups. The most striking result is the mediating role of the TMS in the relationship of TRUST, CM, and NT to IUR. The mediating effect occurs through the TMS as a system enabling exchange, coordination, and feedback, in which individual members of the group serve as external memory aids for other team members. This finding may explain why prior studies have not found direct positive relationships of the variables TRUST, NT, and CM to elements related to performance in innovation and research. Our results are thus very significant because they provide management recommendations for managers who try to improve the performance of their groups. Although this study obtains important results, it has limitations. Its transversal nature requires that the results be analyzed with prudence due to the dynamic character of the constructs evaluated. Future research to complement this study by analyzing the university-industry relationship to consider the real impact of the IUR on society.

Keywords: TMS; university research; trust; collective mind; network ties; groups.

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PURE OR HYBRID? THE IMPACT OF BUSINESS MODEL DESIGN ON SMES INTERNATIONALIZATION PERFORMANCE

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ABSTRACT

Internationalization represents a debated area in management studies. Extant research shows that several variables, being them *firm-related* (Chen *et al.* 2016; Jones and Coviello, 2005; D'Angelo *et al.*, 2016; Larimo, 2013), *country-related* (Chen *et al.* 2016), e.g. where to internationalize, and/or *industry-related* (Chen *et al.* 2016; Jones and Coviello, 2005; Grøgaard *et al.*, 2013), influence internationalization performance. Beyond being evidence still very fragmented (Chen *et al.*, 2016), what is most surprising is that a key factor such as business model design has been almost ignored. Business model design has been considered as crucial in explaining a firm's performance (Zott and Amit, 2008). However, when it comes to be considered with respect to internationalization performance little evidence exists (Hennarth *et al.*, 2017).

The aim of this paper is to investigate if *business model design matters for internationalization performance*. Specifically, drawing from a resource-based view of the firm, this paper jointly considers (i) the impact of resources & capabilities, (ii) alternative business model designs and (iii) the moderating role of being a family-owned firm on SMEs internationalization performance. In particular, three hypotheses are developed. First, on the basis of the literature reviewed (Kyläheiko *et al.*, 2011; Ren *et al.* 2015), we suppose that firm resources & capabilities positively influence firm internationalization (Hp. 1). In so doing, we distinguish between *managerial capabilities* and *innovation capabilities*, measuring them through multi-items constructs, and *marketing resources*, as the share of employees working in marketing department. Second, we propose that business model design influences the internationalization performance (Hp. 2). We distinguished between *pure manufacturer* and *pure subcontractor* (Cagliano and Spina, 2002), and *hybrid* business model designs. Third, we look at the moderating role of *family ownership*, measured as a dichotomous variable, on the resources&capabilities – internationalization performance relationship (Hp. 3a) and on the business model design-internationalization performance relationship (Hp. 3b). The dependend variable, internationalization performance, is measured as the share of foreign sales over total assets.

Hypotheses are tested on a unique database consisting of 213 Italian SMEs in the fashion industry. Results from the regression analysis can be summarized as following. First, consistently with previous research, a positive impact of managerial capabilities, innovation capabilities and marketing resources on internationalization performance is found. Second, an inverted U-shaped relationship is

highlighted between business model designs and internationalization performance. Finally, family ownership does not moderate the resources&capabilities – internationalization performance relationship, while it positively moderates the impact of alternative business model designs on internationalization performance. Moreover, post-hoc analyses reveal a 3-way interaction among managerial capabilities, family-ownership and business model design on internationalization performance, suggesting that being a family-owned business positively influences the inverted U-shaped relationship between business model design and internationalization performance.

This paper contributes to extant research on internationalization management in two ways. First, it represents one of the few examples of studies on business model, family firm and internationalization performance (Hennarth *et al.*, 2017), in particular presenting a business model design continuum between pure manufacturing and pure subcontractor business model. In answering to our research question, hybrid business models seem to lead to higher internationalization performance than the two purest designs (i.e. pure manufacturer or pure subcontractor). However, pure manufacturer business models lead to higher internationalization performance when the firm is family-owned. Second, the paper presents interesting results on the interaction between family-ownership, business model design, and capabilities on internationalization performance, thus calling for further research on this area.

The paper is not without limits that represents avenues for further research. First of all, internationalization performance may be measured by several variables, while we only focused on foreign sales. Second, we know that family firms are heterogeneous and this may lead to different internationalization strategies (Arregle *et al.*, 2017; Kontinen and Ojala, 2010; Pukall and Calabrò, 2014). Third, our results derive from Italian fashion industry only. Moreover, our research findings also are the basis for additional, new research paths. For example, which are the capabilities family-owned firms should develop for improving their internationalization performance under specific business model designs? And, does size influence these relationships? We think that the topic would be of interest for international management and family business scholars as well as for all those practitioners who are facing internationalization challenges.

Keywords: business model design; family-owned firms; internationalization performance; capabilities

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THE APPLICATION OF AN INTEGRATED OMNI-CHANNEL RETAILING STRATEGY IN THE 'BRICKS AND CLICKS' RETAIL COSMETICS INDUSTRY OF CYPRUS AND ITS INFLUENCE ON CUSTOMER LOYALTY: THE CASE OF BEAUTYLINE STORES

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ABSTRACT

This study aims to examine the effect of an integrated Omni-channel retailing strategy on customers' loyalty, when implemented by an organization, specifically for the Cyprus cosmetics 'bricks and clicks' retail industry.

Historically, the retailers' role in society was to sell goods and provide services to consumers (Sundström and Radon, 2014). The way retail operates in the last twenty years has changed fundamentally. Retail has progressed from the traditional bricks-and-mortar, due to the dawn of the online channels and the constant digitalization (Verhoef, Kannan and Inman, 2015). This era contributed many remarkable and innovative developments such as social media websites, e-commerce and m-commerce (Mata and Quesada, 2014). The environment alongside with the rapid technological advancements of web technologies witnessed in the last decade, have created a platform for retailers to conduct business. The above stated platforms are in a constant state of improvement.

At the present, companies have shifted towards consumer-driven marketing and recognizing its importance, since consumers control the process by actively "pulling" information useful to them, whenever and wherever they want, through the use of different channels, especially social media, websites, mobile applications, resulting in the alteration of the path-to-purchase. The Omni-consumers shopping path is non-linear, as consumers often circle back to different touch points. Consequently the Omni-channel concept was driven by the omni-consumers by desiring from the retailers to orchestrate a seamless customer experience across all customer touch points. *"In an Omni-channel world, retailers want to be able to satisfy demand from anywhere"* (Strang, 2013).

The Omni-channel retailing strategy is the outgrowth of a multi-channel retailing strategy. The major difference between the two concepts is the level of integration, where an Omni-channel retailing strategy requires synchronized, consistent and seamless channel integration, in comparison to a multi-channel retailing strategy where the level of integration is fairly low, in other words, each channel works independently. 'Bricks and clicks' retailer's face a few obstacles and challenges (Picot-Coupey, Huré and Piveteau, 2016; Wurmser et al., 2014; Salmon, 2012), that have to overcome in order to successfully integrate, implement and establish an Omni-channel retailing strategy in their

organization; specifically the challenges are the Information & Communication Technologies – Technological Advancements, Business Intelligence Systems, Re-designing the Supply Chain , Customer Relationship Management (CRM) and Omni-channel Marketing.

The consumers' demand for a holistic, seamless and orchestrated experience across all channels, resulted in an Omni-channel strategy and the integration of all channels; online and offline e.g. bricks-and-mortar, catalog, e-commerce, television, m-commerce, radio, direct mail, telephone orders, social media and so on (Capaldo, 2014), offering a seamless (Brynjolfsson, Hu and Rahman, 2013; Hemsey, 2012), integrated, synchronized, coherent and consistent experience to the consumers. Omni-channel anticipates that consumers could begin in one channel and move to another. In fact, according to Simpson (2015) Omni-channel is a more complete approach where a company prioritizes being Omni-present in the Omni-consumers' experience.

The Omni-channel (all-in) experience is rapidly becoming what consumers want and are expecting. "In an Omni-channel world, a consumer centric focus is vital" (Fulgoni, 2015). When customers have the availability to shop from multiple touch points, they become more loyal towards the brand and companies have higher levels of customer engagement. Consumers anticipate product availability as well as the same quality of service in any channel of their choosing, resulting in an overall satisfying shopping experience. An Omni-channel strategy functions as a 21st century weapon fighting against the cut-throat competition, which most of the companies are facing daily.

Moreover, this research will explore the attitudinal perspective of customer loyalty. That is, the customers who can be defined as loyal are the ones who hold favorable attitudes toward an organization, recommend the organization to other consumers (positive word-of-mouth) and exhibit repurchase behavior (Dimitriades, 2006).

The design of this research is based on an exploratory approach and takes the form of a single embedded case study through the investigation of a 'brick and click' retailer; BeautyLine Stores who implements an Omni-channel strategy and operates within the cosmetics industry of Cyprus with 15 stores throughout Cyprus including an e-commerce website. Qualitative data was gathered through face-to-face semi-structured interviews with executives of different departments of BeautyLine Stores as well as two focus groups consisting of customers of BeautyLine Stores and the findings were analyzed deductively by following content analysis.

The contribution of this study has added on to the existing literature review revealing that an integrated Omni-channel retailing strategy followed by a 'brick and click' retailer influences positively the attitudinal perspective of customer loyalty. Specifically, the findings show that BeautyLine Stores have implemented an integrated Omni-channel retailing strategy in their organization, overcame the challenges that the researcher has found through the literature review which were the same and its

customers have exhibited positive word-of-mouth, repeated purchases and held favorable attitudes towards the company, which all these are prerequisites of the attitudinal perspective of customer loyalty. This demonstrates the vital role of channel integration in bringing forth positively the consumer responses. Moreover, since this strategy anticipates that the Omni-consumers can begin their path-to-purchase on one channel and move to another, it enables them to seamlessly experience and navigate between the channels, thus showing an increase in convenience and engagement. The research findings, confirm an alteration of the path-to-purchase that runs in a circular motion and is not linear and reveal that having an integrated Omni-channel retailing strategy provides a 'seamless customer experience' to the Omni-consumers throughout their shopping path, without any disruptions.

The managerial contribution of this study is that it enhances the understanding of the executives of the Omni-channel retailing effects. In addition, this study can be used as an initial point for retailers that are planning to implement an Omni-channel retailing strategy so as to gain knowledge and insight from a retailer that is currently going through this implementation and further development of this strategy. Through this research retailers can see what to expect and the results of the Omni-channel concept. Being up-to-date with the current retail trends is the only way to survive as well as to stay competitive in opposition to international players and this could definitely take in advantage the Cypriot retailers.

Adding to this, the researcher developed a comprehensive model depicting the visualization of an integrated 'brick-and-click' retailer of an Omni-channel retailing approach. The model was shaped through the literature review and tested through the exploratory research and was confirmed. This Omni-channel retailing model demonstrates the former challenges and current capabilities of the Omni-channel retailing strategy which are working in a synchronized and integrated manner, resulting in the unification of the internal operating systems/departments causing an integration of all the retailing channels. The current capabilities are business intelligence which enables access to, and analysis of information to improve and optimize decisions and business performance. Customer Relationship Management which manages the company's interaction with current and potential customers and sends personalized content to each and one of the company's customers. Re-design the supply chain so as for activities such as purchasing, warehousing, transportation, and distribution along with customer service to function inside of a sole operation in the supply chain, so as to create customer value. Marketing which must be customer-centric and Information and Communication Technologies, such as in-store interactive technologies must be linked with all the other aforementioned capabilities. The capabilities mentioned above must be integrated. The outcome is that the Omni-consumers can choose any channel of their preferences to shop or find information

from since the channels are integrated. Additionally the model shows that the Omni-consumers shopping path is running in a circular motion. The Omni-consumers can start their shopping journey at one channel and continue to the next one based on their preferences. As the Omni-channel retailing strategy is working in this integrated manner exhibits an influence on the attitudinal perspective of customer loyalty. This model can be used by researchers to further develop an Omni-channel retailing strategy and can be used by executives as a blueprint so as to implement an Omni-channel retailing strategy.

The retailers who understand the significance and importance of this innovative strategy and have the acumen to invest in it are the ones who will harvest the fruits of Omni-channel.

Keywords: Omni-channel Retailing, Marketing, Challenges, Channels, Customer Loyalty, Path-to-purchase, Bricks and clicks.

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THE CERTIFICATION OF ECOLOGICAL, TRADITIONAL, HALAL FOODS ADDS VALUE FOR ROMANIAN PRODUCERS

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ABSTRACT

The present paper highlights the consequences of studying the environmental certification of food products, given the importance of organic products at the European Union level. It examines, analyzes and presents the results of a survey carried out on the occasion of a traditional food fair organized in Constanta, in the Southeast Development Region of Romania.

The study approaches a qualitative method - the interview; the analysis unit being represented by local producers and operators.

Based on the outcome of the present research, we concluded that the environmental certification process is known only to a part of the group of traditional food producers and operators, while for others it is not.

Most respondents to this survey do not benefit from organic certification and certification of food products, while about 22% own organic certification of traditional products. They consider that the process brings important added value, increase consumers' confidence in the organic products and the consumption as well, as they trust that the certification system guarantees the superior quality of products waiting to be purchased.

INTRODUCTION

Nowadays, more and more consumers face an important dilemma when choosing the aliments they need or finding the healthier food products for consumption. They have difficulties to recognize the best items in terms of the price-quality ratio, especially in the situation where the market is full of an increasing variety of competing national and international brands, which make the choice to be a complex one.

The Romanian legal frame and the general practices initiated support the recognition and the assistance of the local food producers in order to decrease the high speed food importation phenomena, especially from countries that challenge the consumption by using harmful pests which end up contained in the goods they trade.

Today, consumers have become more cautious when buying the products they need. Their perception and choice are biased because of: the lack of knowledge in reading the labels or in appreciating the

origin of the foods and their intrinsic quality and the ignorance in the way they understand and interpret the chemical, physical, organoleptic and biological quality of all products.

Some authors indicate among decisive factors of choice, the consumers' perception and attitude against the certification of products in an ecological system, as the single factor that guarantees the quality of that food (Ortega, 2002). Thus, the process through which the products receive an official certification in a specific system of validation becomes a necessity in the current consumers' opinion. The certification of the organic products increases both relevance and market share (Albsermeier et al., 2009). The environmental certification process leads to optimal traceability of food products and contributes at the permanent increase of the products' quality that avoids contingent health problems too (Meuwissen, 2003).

MATERIALS AND METHODS

In order to realize a study to size and key out the perceptions and attitudes of consumers of organic products', we used the structured interview technique, as a qualitative method aimed at food operators and traditional producers encountered at a local fair hold between 2nd to 4th of March 2018, in the city of Constanta, from the Southeastern area of Romania. The general purpose of this fair was to promote the sustainable development of local producers and small entrepreneurs' activity to ensure the visibility of their products and the local gastronomy to attract more tourists. The total number of operators and food producers that participated at the fair was 150 of which, 130 agreed to participate in the study. The questionnaire with 10 open questions, addressed during 4 minutes only, allowed extensive answers, more conclusive as answers were underlined by their own opinions (Bogdan and Biklen, 2003).

The survey faced some limitations: a) of time as the interview was only 4 minutes and b) of space given the organization and unfolding of this farmers' market, the space in which this fair was held did not allow the recording of conversations with the respondents, due to the high background noise .

The main objectives focused to: a) identify and determine whether local operators and manufacturers have for commercialization products that they had previously certified; b) determine the perception and the attitude of operators and local producers on food certification, c) make the respondents discover the benefits of obtaining such certification, d) find out the level of knowledge of local operators and manufacturers on authorities and institutions involved in food certification.

RESEARCH RESULTS

The respondents provided a variety of products for sale, in different varieties and assortments. The most common products were: different types of sausages (46.92%), honey and bee products (21.54%)

jams (10.77%), homemade cakes (9.23%), syrups (6.15%), and other foods (10.77%) as exemplified in Figure 1:

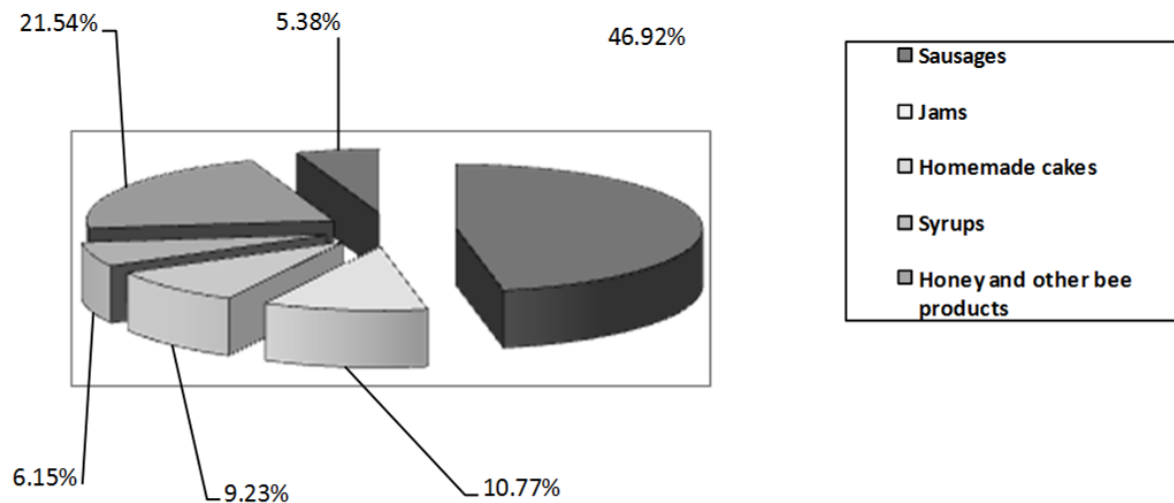


Figure 1. Types of traditional products commercialized at Constanta Farmers' Fair

Figure 2 illustrates the different types of certifications to produce food, emphasizing that 49.23% of the local operators and producers responders did not hold any certification.

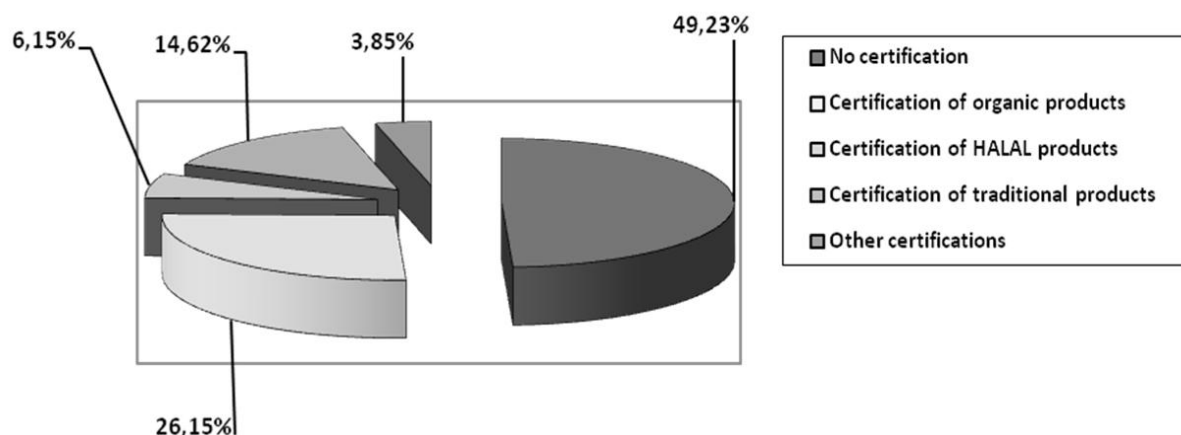


Figure 2. The categories of certifications owned by the local food producers

From the farmers holding certifications, 26.15% were commercializing ecologically certified products - mostly sausages and honey. These certifications were issued by various authorities of inspection and certification in ecological system, such as: ECOCERT SRL and ECOINSPECT SRL. Another 24.62% of the respondents hold certificates of traditional products, such as: dried or smoked sausages from Plescoi, Babic de Plescoi, Sheep Telemea "Baneasa"; 6.15% hold certifications for selling products produced in the Halal system granted by the Multinational Muslim Cult of Romania. A mere 3.85% of food business operators and producers carried on different other certifications, such as that one issued by the National Institute for Food Development - IBA Bucharest.

The local operators and food producers shared their opinions about obtaining or not a certification for organic, traditional or Halal products. From the conversations resulted that the process of obtaining a certification is perceived as a positive and beneficial thing and an investment idea for manufacturers who already have such certification. They sustained that such a certificate adds value to their goods and more money in their pockets in the long run. Many other respondents mentioned the frequent misunderstandings occurred around the certification processes, whether for organic, traditional or Halal products.

A manufacturer selling different types of sausages demonstrated the misunderstanding existing between the different kinds of certification ignoring the fact that one organic product could also be certified as a traditional or a Halal product as well increasing the product's value in the market. Other producers believe that no certification other than that obtained from the National Institute for Food Development is necessary, because in the case of food exportation, none of those is relevant or recognized abroad. Also, operators and producers who have neither certified their products yet, nor look in the future to obtain it were arguing different obstacles to surmount, such as the time lost with authorities, the extra costs, the delays in obtaining the expected benefits all these hinders demotivated them to try.

In fact, certified products will always get more reliability on the market from people who understand the process and appreciate its value. Certifying their productions, both operators and producers add value to their profits as some of the additional costs are paid back by high prices obtained when sold. The certified products are more attractive for the external markets too, especially if they are validated as either organic, traditional products or as part of the Halal sources. These products, once confirmed, will be proved and classified as premium higher quality products, having significant value added and been accepted for distribution on numerous markets, external once included compared to only the local ones on non certified products. All these advantages will belong to the producer who will market these premium products.

Those who didn't hold any certification proved their lack of knowledge regarding the value of such a process of authorization, accreditation and validation of the products of higher quality. Unfortunately, only 6.25% of the number of people who didn't hold a certification was able to show knowledge linked to this topic. This percentage showed that local operators and producers in the Constanta Farmers' Fair were not sufficiently well informed about the steps to take for the certification process, or about the benefits that such process could bring them.

CONCLUSIONS

The certification process is one of the most important elements for distinguishing the quality of the

offered, marketed and purchased food products, when taking into account the variety of products currently present on the Romanian market. Obtaining a certification for one or more food products is an indicator and a guarantee of product quality which brings an important contribution to maintaining a good health status and raising the quality of life.

The study based on a survey conducted by the authors at the producers' fair organized in Constanta from the Southeast development region allowed investigating the importance that local operators and producers have given to the certification process and certified products in the traditional ecological system and Halal.

The food products marketed at this fair consisted of various types of sausages, honey and bee products, jams, homemade cakes, syrups and other foods

Most farmers did not have any product certification, while among few manufacturers, we found the certification of organic, traditional and Halal products.

A large number of producers who hold certified products believe that the certification process is a reasonable one that brings advantages to the holder, the most important benefit being the added value of the products sold, as well as the superior quality of the products recognized. In parallel, the survey showed that the level of information and awareness about the certification process is extremely low, with many respondents not knowing the steps in obtaining a certification, as well as some certification authorities to approach.

Nevertheless, responders realized following the discussions that the most impressive benefits remain the quality of products that lead to increased consumer confidence in purchased products, as well as increased sales, through the added value of certified products.

Keywords: Food, ecological, certification, quality, survey

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ASSESSMENT OF LEARNING EFFECTIVENESS ACROSS FOUR DIFFERENT INSTRUCTIONAL DELIVERY MODES

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ABSTRACT

Many major universities either have started or have expanded their online course and degree program offering. As more working adults go back to school, and younger generations seek the convenience of virtual learning systems, higher education establishments had to increase their investments in online learning platforms. This research focuses on comparing the effectiveness of different course delivery modes by comparing student performance across various delivery platforms that include traditional, hybrid, online and experiential. We do so by distinguishing between the assessments components of the same international business course, and consider student performance on rote level, critical thinking and engagement components. Data supports the thesis that while online learning can be effective in achieving rote-level learning, critical thinking can be that much more challenging outside face-to-face interactions in the classroom. As would be expected, student engagement levels seem to be more correlated with critical thinking outcomes. We discuss the findings and their implications on learning, and offer venues for further inquiries.

Keywords: Technology, Education, Delivery Modes; Online

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CONSUMER TOUCH POINTS AND COGNITIVE PROXIMITY. MISSINGS FROM MILLENNIALS

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ABSTRACT

PURPOSE

In the marketing literature, a recent interest has arisen for the impact of different customer touch points on consumer experience and performance. Lemon and Verhoef (2016) identified the presence of four main categories of touch points: brand owned, partner owned, customer owned, and social/external. The former includes interactions firm-customer controlled/managed directly by a firm; partner owned represents those interactions with customer designed/managed/controlled by a firm and its partner(s); customer owned identifies customer actions that are not controlled or influenced neither by the firm and nor by its partners; social/external embrace interactions among customer and others, such as third-party sources. In line with previous studies (Anderl *et al.*, 2016; Li and Kannan, 2014), it is our aim to investigate the effect of touch points on online purchases, but from a different angle: the degree of customer trust for each touch point will be our focus. Indeed, trust is considered as a factor that may impact on online purchase (Lloyd and Goode, 2010) and repurchase (Rose *et al.*, 2012). Given these bases, in our model we identified seven variables belonging to the four touch points above presented: brand owned divided in trust on offline brand owned (physical store) and trust on online brand owned (firm's website); trust on partner owned touch points (e.g. Zalando and Yoox); trust on social/external touch points (social network); consumer owned composed by trust on influencer owned touch points (social influencer) and trust on other-consumer owned touch points (review by previous customers). From a firm perspective, it is fundamental to understand the typologies of touch points at hand, as each one has a different leverage ability on customers (Lemon and Verhoef, 2016). Indeed, while a firm has a greater ability to influence brand and partner owned touch points, it has marginal effect on the remaining. From a customer perspective, Mathieu (2001) underlined how the cognitive proximity may act as a moderator among customers and service suppliers, thus defining the concept of cognitive proximity as the closeness in the knowledge base of the two actors and their mutual trust. Basically, at higher degree of cognitive proximity among actors should correspond a higher degree of influence on each other behaviour. Therefore, in our conceptual model other-consumer owned touch point leads higher degree of influence because of the higher closeness among the potential and the previous customers, while offline brand owned touch point

shows the lower influence. Listing our variables in an increasing path of cognitive proximity, we have: offline brand owned, online brand owned, partner owned, social/external, influencer owned, and other-consumer owned. Thus, our first research question is: (RQ1) *How do trust on different touch points influence online purchases?* The Millennials cohort, that include those aged 18-35, has been chosen to answer this research question. They are the first hyper connected generation, facing an extreme mobility, showing high consumption tendencies and more sophisticated behaviours (Lissitsa and Kol, 2016). Inspired by some studies that uncovered different behaviours among Millennials' sub-cohorts (Guraū, 2012; Debevec *et al.*, 2013), we shaped three sub-groups: 18-23, 24-27, and 28-35. Hence, our second research question is: (RQ2) *Does trust on touch points have dissimilar effects among sub-cohorts of Millennials?*

SAMPLE AND METHODOLOGY

The sector chosen to perform our analysis is the fashion industry. Data were gathered in 2017 from an Italian sample through a structured survey and 1229 usable answers were obtained. Millennials were asked to complete a set of 33 questions divided in five sections: (a) general online purchase behaviour, (b) process of online purchase and trust factors, (c) respondent past experience and knowledge of the fashion industry, (d) specific purchasing behaviour for fashion products, and (e) personal information. The percentage of *online purchase* on the yearly total fashion purchase represents the outcome variable of our econometric model. *Offline brand owned* [1], *Online brand owned* [2], and *Partner owned* [3] touch points are dummy variables, that assumes value 1 if the consumer prefers to visualize the product in the brand store [1], in the brand website [2], or in a partner website [3] before the purchase. *Social/External* [4] and *Influencer owned* [5] touch points represent the degree of consumer's trust on social media information [4] or influencer information [5], that goes from 1 "low" to 5 "high trust". *Other consumer owned* [6] touch point represents the degree of consumer employment of products' reviews from other consumers in their purchasing choice, that ranks from 0 "low" to 4 "high employment". *Gender* [7] has been introduced as control variable in the regression, while *Education* [8] and *Income* [9] in the discriminant analysis.

FINDINGS AND CONCLUSIONS

Descriptive statistics and correlation analysis have been performed, showing low VIF scores and high values of Tolerance. The discriminant analysis shows a good ability of online purchase, income and education to discriminate among the three Millennials groups, enhancing the robustness of the following findings. For what concern the first research question, high trust on social/external touch point shows the highest impact on online purchase, followed by partner owned, other-consumer

owned, brand owned online and offline. However, other-consumer owned is the only construct that, regardless of low or high trust, maintains a positive and significant effect. Influencer owned touch point seems to be not significant for online purchases, or to have a negative impact. Thus, our conceptual model is partially supported, and more insights are needed to understand the fuzziness related to touch points closer to the consumer and out of firms' control. For what concern the second research question, our findings show different patterns among the three groups. Indeed, for Millennials belonging to the 18-23 group high degree of trust on social/external and offline brand owned touch points show the highest impact on online purchases; for 24-27 millennials partner owned and high degree of trust on social/external are the variables with highest magnitude of coefficients; for 28-35 high degree of trust on other-consumer owned, high degree of trust on social/external, and partner owned touch points show the highest impact. It is interesting to recognize the role of social influencer, that is slightly positive for 18-23, not significant for 24-27, while significant and negative for 28-35. These results not only show three completely different behaviours, but also increase our confidence on the sub-groups shaped. Lastly, these results underline that even though some consumers in the 28-35 group express high level of trust on social influencers, the latter have an adverse effect on online purchase: *rejection*.

Keywords: consumer; firm leverage; millennials; touch points; cognitive proximity; online purchase; customer journey; social media; customer experience; fashion industry

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AN INVESTIGATION INTO EMPLOYEE TURNOVER WITHIN THE BULGARIAN HOSPITALITY INDUSTRY AND IDENTIFYING METHODS OF RETENTION THAT COULD BE ADOPTED

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ABSTRACT

Hospitality industry is one of the biggest and fastest growing sectors around the world, which has a remarkable input to countries' economies. However, one of the most concerning problems within the sector is the issue of employee turnover together with the challenge to manage skill shortages. Tourism is a business area where staff turnover is not only higher in comparison with many other industries; it is dangerously high and immediate steps need to be taken.

According to the literature, reasons behind high turnover rates in Tourism are many and diverse. Key reasons found in the literature influencing employees to leave hotels/resort or even the sector are the seasonal nature of work for most jobs, low-skill requirements in most of entry-level positions allowing many inexperienced people to work in the sector, inadequate payment, lack of work-life balance, extreme workload, abnormal working hours and lack of growth opportunities.

The aim of the research focusing on the Bulgarian market, drives to achieve a clear understanding of reasons contributing towards high levels of turnover within the Bulgarian Hospitality sector. Moreover, the research aimed to discover the factors behind employees' job-satisfaction, to identify methods for retention of employees that could be adopted within the sector and to provide recommendations for managers.

The methodology applied to achieve these objectives consist on collecting primary and secondary data. The main body of literature gathered was from foreign researchers and for the sector in general. It was identified a lack of existent literature on this particular topic about Bulgarian Tourism making the significance of this research even greater. Due to being the hospitality sector a major contributor to the Bulgarian economy and focusing on the issues in the industry could benefit managers, employees, HR professionals and the Bulgarian economy in general.

Qualitative research at one of the biggest Bulgarian tourist summer resorts was carried out. The researchers conducted semi-structured interviews with twelve respondents. The sampling consisted of four top managers in the resort, four employees currently working at the resort and four employees who had left the company.

The findings showed that there is a great mismatch between what managers think causes' turnover and what employees think are the reasons behind the issue. The key factors for staff retention within

the sector and feel satisfied are: development opportunities, work-life balance, adequate remuneration, good and respectful attitude towards them, appreciation and involvement in the decision-making process.

Results from the interviews were analysed using content analysis and compared to the literature. Based on the primary and secondary data gathered, reasons causing turnover within Bulgarian Hospitality sector were discussed together with the factors determining whether employees stay or leave a particular company. Finally, an eight-step strategy for solving the problem was developed. The strategy includes two groups of steps - directly focused on employees and indirectly focused on employees. Hopefully, by implementing at least some of the suggested ideas, managers could improve the situation and retain their staff.

Keywords: Hospitality industry, employee retention, employee turnover, Bulgaria

THE ENCROACHMENT OF THE COMPETITIVE INTELLIGENCE'S FUNCTIONS ON THE COMPANIES' PROFIT

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ABSTRACT

The United States of America has always aimed to maintain its hegemonic position in all highly profitable branches of activity: high-tech, cutting-edge technologies, pharmaceuticals, aerospace. Heading the most innovative markets is always corroborating with the industries' competitiveness and allows seeing the competitive advantage.

The Competitive Intelligence is a new branch in business, originated in the American military intelligence work, was born only four decades ago. Disputable in the early years, it is today an activity of gathering and analyzing information fully placed in the ethical and legal order to support the decisions of top management executives.

At the beginning, large USA companies started to hire retired intelligence officers in order to create early warning systems of competing companies' actions in order to provide a leverage to maintain and increase profits. Many companies made efforts to strengthen their leadership position towards competitors, without realizing that they actually call this activity Competitive Intelligence.

The main functionality of Competitive Intelligence is to create a mechanism that provides understanding of the global information-based economy. It concentrates all important and actionable information to enable decision-makers to act faster and with more confidence. In the Competitive Intelligence process, the organization collects data and information about competitors, products and consumers before applying different analysis methods to identify key strategic implications.

The paper describes the way the executives make better-informed decisions with a positive impact on the company's overall operations and profits.

INTRODUCTION

The concept of Competitive Intelligence refers, at a general process by which any establishment can obtain information about the external environment and competitors. Ideally, the information gathered and provided through Competitive Intelligence represents the foundation for the organization's decision-makers to use and increase the profits and performance of the organization. Therefore, Competitive Intelligence works as an informational tool that helps the decision-makers to process easier and more accurately the data they have and to anticipate the weaknesses of the economic environment in which they operate. At the same time, the new domain of activity provides additional

chances to discover new opportunities in the market and to reduce the risks (Lesca and Caron, 1995). Bearing in mind the necessity to adopt strategies to the market reality, Competitive Intelligence brings up images or trends and matches them with sensitive business-related events, signals, perceptions, or other data that are apparently inscrutable or hard to notice by the management.

In West's view (2001), obtaining information about competitors has always been a part of tactical or strategic marketing plans. The activity we consider as Competitive Intelligence is part of the market and become a new part of the market researches; through it, more data and information are collected with regard at market movements and competitors' activities. This is an intuitive process involved in marketing and customer analysis that, in combination with business disciplines changed the market and business approaches through its highly specialized functions for which specially trained people are responsible.

THE DIFFERENCE BETWEEN COMPETITIVE INTELLIGENCE, MARKET RESEARCH AND COMPETITOR INTELLIGENCE

While Competitive Intelligence teams use data, information and resources to anticipate market changes and competitive activity to develop contingency strategies, the market researchers identify the market's disruptions and focus on supporting specific franchises. Hence, the market researches are considered subsets of Competitive Intelligence, with similarities and overlaps between the two areas.

Competitive Intelligence is often confused with a competitor intelligence activity. Besides this activity, Competitive Intelligence also monitors other forces that influence the market, including technology, ideologies, economic conditions, media, regulatory and regulatory changes (Underwood, 2013). Other goals of Competitive Intelligence activity (Wadie, 2011) include: creating a repetitive process that monitors (and reports) products and potential strategic moves of competitors; the strategic acquisition of foreknowledge of competitors' plans, but also the integration, in the company's existing information infrastructure, of the analysis and distribution of information.

IMPLEMENTING THE COMPETITIVE INTELLIGENCE FUNCTION

The goal of any Competitive Intelligence activity is to understand the competitor's strategy, methods of operation and the strengths and weaknesses (Grabowski, 1987). One of the pioneers of this domain, Ben Gilad, the pioneer of the Competitive Intelligence, considers it the most precious help of decision-makers to "see the truth," test new assumptions, and identify the organization's level of competitiveness (Rothberg and Erickson, 2005). At the same time, Competitive Intelligence is that particular activity with a general objective to "manage the entire competition field": to know its competitors, the economic environment in which they act and to use this information in the decision-

making process. Thus, at an organizational level, Competitive Intelligence is both an offensive practice by providing a response to "what can we do" to get the competitive edge, and a defensive one that answers the question "what do we have to do" (Rothberg and Erickson, 2005).

The main function of Competitive Intelligence is to concentrate all the information available on the most important and active points to enable key decision-makers to act faster and with more confidence. Another function of Competitive Intelligence provides the mechanism to understand the global information-based economy.

Davis (2014) proposed a systematic eight-step methodology that integrates the five principles for implementing an internal Competitive Intelligence function.

The five basic principles are: people, processes, structure, technology, and culture; these being integrated to provide an overview of the points, issues, and tips that should be considered when you want to implement the Competitive Intelligence function in your company. The eight steps are the following (Davis, 2014):

- Design the objectives of the Competitive Intelligence function and assessing existing capabilities;
- Implement the rules for collecting intelligence;
- establish clear roles for the Competitive Intelligence Team;
- transform the raw intelligence into operational perspectives;
- determine the internal and external balance of the organization;
- develop a customized performance measurement system;
- determine how raw intelligence can be accessed internally;
- promote an organizational culture that includes Competitive Intelligence.

Simmons (2013) believes that setting up an internal Competitive Intelligence function can be challenging. He believes that among the obstacles that may be encountered are: the inability to recognize and systematically access the intelligence; technological limitations; geographical distance or language barriers; areas of poorly defined expertise; internal conflicts; modest incentives for employees; training or inadequate mentoring programs.

In Kahaner's sense (1996), the basis of a Competitive Intelligence system is the intelligence cycle. This is a process by which raw data and information is transformed into added value or intelligence information; this process being taken over from government intelligence services. The intelligence cycle is a process of five interdependent steps or phases. Each phase is as important as the others, each adding value. This process is most easily explained as a linear flow model, although in practice these are multidirectional, multidimensional and iterative processes. Christopher Murphy (2005) clearly describes the role of intelligence process in Competitive Intelligence, claiming to provide an easy-to-understand and logical program for producing Competitive Intelligence. The process of creating

actionable intelligence involves following a number of steps and borrowing the intelligence cycle used by those operating in military and political fields. This process is progressive and follows a series of steps from identification of information needs to final delivery to the beneficiaries. At the same time, Murphy believes that this is a cyclical activity, because the finished product will generate additional requests from its recipients, so each end can be a new one (Murphy, 2005).

The Competitive Intelligence process is a continuous process that consists of several sequential stages (Fleisher and Benssoussan, 2007). The specialized literature presents several models of the Competitive Intelligence process, the most important differences being the number of stages, the structure of the cycles and the sources of information. However, most authors consider that the Competitive Intelligence process is normally composed of the following five steps (Vouri, 2011):

- identify information needs. The tasks of this first phase include: defining the most important information needs, promoting the use of relevant information, reducing the accumulation of excess information, keeping critical information safe from those who do not need it to carry out their tasks
- collect information. The tasks of this step are to collect information from different sources and assess the quality, authenticity and usefulness of information;
- process the information (index, store and analyze information);
- disseminate and share results with decision-makers and their team;
- use the results obtained, make people understand the new figures, analyze feedbacks, create new needs.

CONCLUSION

Easy access to information and the unprecedented development of communications have made the way in which value added is created and businesses to change in a fundamental way. The principle that knowledge means power has never been truer than now - information is the essence of the contemporary world. Information is a real modern currency exchange, the raw material and the basis of knowledge. Information is the most valuable asset that the company owns. The power is master of all areas of activity. Information is a fearsome weapon in the hands of people who know how to use it and, at the same time, it is also an attractive target for competitors through collection operations. Companies need to gather information efficiently and process it quickly, otherwise they will be left behind or disappear due to aggressive competitive environment.

During stable periods, making decisions is much based on previous experience, as there are not many changes and the environment is relatively constant. Conversely, during periods of great and dynamic transformation, past experience is no longer justified, and decision-makers need relevant and quickly

acquired information to help them make the best decisions. By implementing a Competitive Intelligence function, managers' decisions are based on an active process aimed to increase the profit and performance of the organization.

Keywords: competitive intelligence, strategic management, profit, added value, competitive, advantage, decision-making, business, strategy.

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MULTIFACETTES ADVANTAGES OF SUSTAINABLE BUSINESS IN CHANGING THE LIFESTYLE

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ABSTRACT

Health is an outstanding human capital of which individuals and society benefit. It is defined by the state of harmony established between the natural gifts received by people at birth and the choices decided for a specific lifestyle during the life.

The objective of this paper is to present several methods to balance the lifestyle chosen, identify and eliminate the causes of the most frequent diseases and show their influence against the entire societal development.

The research focuses on the role and effects of good changes in nutrition and behavior. When the right lifestyle is adopted, the change is a gain (Reunen, 2015) with individual and societal consequences. To posit the health issues in the daily activities and habits implies the identification of whose factors that directly influence peoples' life and work – as lacks, discontent or stress. To get better results, people use to adhere to different principles; however, they often receive opposite effects as they know to read correctly neither their value and needs, nor the real conditions of life (Pakholoc, 2013).

The paper's objective relies on the challenges provided to all categories of people that decide changing their behavior and style of life by adopting alternatives to stress, sedentariness and dysfunctional nutrition. Two hypotheses are considered (cognitive and emotional) in order to deepen the analysis between the willingness to take new initiative to gain health and to develop new relations between different actions, such as: decision for change, wrong habits abandon and creation of a new mentality, for individual and society's benefit.

Keywords: life style, health, added value

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FEAR OF FAILURE AND INTERNATIONAL OPPORTUNITY EVALUATION

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ABSTRACT

We theorise about fear of failure in international entrepreneurship. We use the context of international opportunity evaluation to elaborate on how fear of failure may be affecting internationalisation activities of small or medium-sized firms (SMEs). The success of an SME's internationalisation pursuits depends on the entrepreneur's capability to identify and evaluate opportunities (Oviatt & McDougall, 2005). However, complexity and uncertainty of the international business environment may be overwhelming for a decision maker (Hsu et al., 2013) as illustrated by stories about failure in international markets (Alexander & Korine, 2008). Some empirical evidence indicates that the fear of failure affects the exporting behaviour of SMEs (Alon et al., 2013; Lafuente et al., 2015).

Although the fear of failure has received some attention in the international business literature, little attention has been given to exploring how individual decision-makers experience this emotion and how it impacts the process of internationalisation of SMEs. Extant studies largely ignore the role of the fear of failure in understanding entrepreneurs' decision-making process and its subsequent behavioural outcome that determine the internationalisation process of their ventures. In contrast, the fear of failure is well researched in psychology and studied in entrepreneurship research, however, these finding cannot be simply extended into a new context (Cacciotti et al., 2016), such as international business environment. We advance the field of international business/international entrepreneurship offering a discussion about the relevance and complexity of this phenomenon.

We ought to understand experience of individuals and identify why they respond differently in the context of the same activity (Cacciotti et al., 2016) . We argue that international opportunity evaluation by entrepreneurs who expand their ventures across borders is a fruitful context for in-depth exploration of the fear of failure in international business. Such in-depth understanding cannot be achieved if this complex phenomenon is explored within the process of internationalisation in general. We believe international opportunity evaluation is a critical stage of the process of internationalisation most suitable for exploring the dynamic and complex nature of the fear of failure because it implies making challenging decisions in the unfamiliar business environment filled with risk and uncertainty. International opportunity evaluation research is only starting to emerge (Chandra, 2017; Mainela et al., 2014) and we offer a new theoretical lens, the fear of failure, for its further exploration. Opportunity evaluation comprises assessing the value of the opportunity's

potential, a first person's belief and future-oriented activity. These assessments occur in the context that affects judgements of a decision-maker, depending on his/her perception. International environment presents specific context for this activity, especially at the early stage of internationalisation of a firm, because entrepreneurs are effected by liabilities of foreignness and outsidership (Johanson & Vahlne, 2009) and lack necessary information, knowledge and experience to evaluate the international opportunity. Furthermore, risk and uncertainty inherent in the process of internationalisation shape how an entrepreneur views an international opportunity, perceiving it as a chance to growth the venture or a potential threat to the venture's survival.

The fear of failure in the context of international opportunity evaluation as a multifaceted dynamic phenomenon. We describe fours perspectives on the fear of failure (emotion, disposition, experience and social construct) and elaborate on their relevance to opportunity evaluation and internationalisation of the firm, integrating cross-disciplinary empirical evidence. Our discussion indicates that the fear of failure in the context of international opportunity evaluation may come in different forms, such as emotional burden, dispositional risk avoidance, continuous experience and social stigma feedback.

We offer conceptual insights only and encourage future research to investigate the fear of failure in the process of internationalisation by capturing the voice of entrepreneurs who could share their personal experience. Qualitative investigation using interpretive techniques would be the first and important stage. Research questions may look at how entrepreneurs experience fear of failure at different stages of the process of internationalisation. Further, the fear of failure is a context-sensitive phenomenon (Cacciotti et al., 2016) . Hence, the future research could look at different institutional context to explore this phenomenon. We argue that the institutional context in emerging economies may provide especially interesting ground for investigation because entrepreneurs from emerging markets may have limited international networks (Ellis, 2011) and in some cases their domestic context exerts specific socio-cultural pressures (Alon et al., 2013). Finally, future research could explore how entrepreneurs overcome the fear of failure at different stages of internationalisation with the view of advancing theory providing practical recommendations.

The fear reactions may be an unconscious experience when individuals are not aware what they fear (Loewenstein et al., 2001). It is of benefit to decision-makers to understand why they experience fear of failure in evaluating international opportunities and diverse ways in which fear of failure may be manifested. This is especially applicable to the situation when entrepreneurs may succumb to fear of failure, for example opting not to enter or to exit export markets. We suggest building awareness about the fear of failure. Generally, individuals are reluctant to talk about a difficult emotion such as fear of failure, but we cannot deny its connection to stress, anxiety and cognitive disruption that

impact decision-making. Awareness of the fear of failure and understanding its mechanism is the step forward in managing it.

Keywords: International opportunity evaluation, fear of failure, internationalisation of SMEs

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EVALUATING TECHNOLOGICAL INTERACTIVE PRODUCTS BY THE VISUAL SIMPLICITY LEVEL OF THEIR DESIGN

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ABSTRACT

Contemporary models depicting the interaction between users and interactive products include three major constructs in their analysis, namely task-, experience-, and image-oriented dimensions. The task-oriented dimension relates to the pragmatic goals expected to be achieved by the products. The experience-oriented dimension relates to the sensory experience that is elicited by the interaction with the product. Finally, the image-oriented dimension relates to the associations provoked by the product and possible use of it. These dimensions are suggested in the literature to be conceptually distinct. Still, empirical evidence suggest they are highly correlated. In order to understand these correlations, there is a need to go beyond the objective and to consider the subjective impression of product dimensions. By that doing, interrelations between dimensions are unravelled and evaluation models become more robust. In an exploratory experiment, this research paper explores how technological interactive products, different in the visual simplicity level of their design, are judged, and how preference to each design is formed. The emerging interrelations between product dimensions suggest that people tend to rely on the experience-oriented dimension, to conclude the quality of the task-oriented dimension. By relating to their underlying sub-dimensions, interrelations between sub-dimensions can be controlled in future research studying the evaluations of technological products. The approach succinctly controls for potential construct overlaps, thus facilitating future research by providing an inclusive product evaluation measurement scale.

INTRODUCTION

Contemporary models depicting the interaction between users and technological interactive products include three dimensions in their analysis (e.g., Crilly et al., 2004; Eytam et al., 2017; Norman, 2004; Rafaeli and Vilnai-Yavetz, 2004). Roughly, the first dimension is *task-oriented* and relates to the pragmatic goals the product is expected to achieve. The second is *experience-oriented* and relates to the sensory experience that is elicited during the interaction with the product. Finally, the third is *image-oriented* and relates to the associations provoked by owning the product and its potential use. As a whole, the interaction with products is expected to support task completion, while providing a positive usage experience and reflecting an overall good impression of both the product and its user. Norman's (2004) three levels of analysis (i.e., visceral, behavioural, and reflective) provide a

framework to understanding the interrelations between product dimensions: the experience-oriented dimension includes attributes that can be labelled as analysed in the *visceral level of analysis* concerned with the initial reaction to the appearance of the product; the task-oriented dimension includes attributes that can be labelled as analysed in the *behavioural level*, concerned with the actual use of the interactive product; finally, the image-oriented dimension includes all product attributes analysed in the *reflective level*, concerned with the meaning and associations the product provokes such as memories or the self it helps create.

Although product evaluation models suggest these product dimensions are conceptually distinct (e.g., Rafaeli and Vilnai-Yavetz, 2004), there is evidence that perceived product dimensions converge. For example, Lavie and Tractinsky (2004) report cross-loadings of items on both ease-of-use (i.e., task-oriented dimension) and aesthetic (i.e., experience-oriented dimension) factors. Tractinsky and Zmuri (2006) report very high correlations between aesthetics and symbolism (i.e., image-oriented dimension). Unraveling why these interrelations between conceptually distinct dimensions occur, may help in shedding light on the evaluation process and on preference formation. The contribution of this work lies within revising the existing evaluation models to provide researchers with a new perception on how perceived product dimensions and their interrelations influence product preference. By thus doing, construct overlaps can be controlled, fewer measures for product dimension would have to be collected and analysed, and finally evaluation models of interactive products become more robust without impairing content validity.

METHODOLOGY

One hundred and one people volunteered to take part in the study (age: $M = 24.61$, $SD = 3.76$, range 18-43; 52% male). Eighteen items were chosen to evaluate technological interactive products attributes. Two illustrations were chosen as research stimuli. Illustrations differed in the number of controls, while control shapes and sizes were held relatively similar. Participants received a hard copy survey presenting two illustrations of interactive products, not specifying their use or purpose. Each stimuli was presented with 3-4 randomly chosen items in order to control for possible consistency effect. Participants rated each stimuli with a total of 18 items and then rated their preference to each stimuli on a Likert-type scale (1 = do not agree with the statement, 7 = agree with the statement).

RESULTS

Exploratory factor analyses (EFA) with maximum likelihood estimation were applied to the 18 items measured. We specified an extraction criterion of eigenvalue > 1 and the solution was rotated using an

oblique method (direct oblimin with Kaiser Normalization). Six factors were extracted based on the three criteria (scree test, parallel analysis, and interpretability). Items were loaded on the factors matching their hypothesised dimensions. The six-factor solution explained 60% of the total variance of the simple stimuli, and 62% of the total variance of the complex stimuli. Reliabilities of each three items loaded on a distinct factor, were adequate (Cronbach's Alpha > .7). Some factors were highly correlated (r between .67 and .75). These correlations suggest that these factors belong to the same dimension, each representing a slightly different facet of that dimension. Still, some factors, that were apparently reflecting unrelated sub-dimensions, were also correlated to some extent, even when clearly belonging to different theoretical dimensions (r between .41 and .56).

CONCLUSION AND FUTURE RESEARCH

In this research project, we revised existing product evaluation models. In general, three major product dimensions are identified in the literature to be conceptually distinct (Eytam et al., 2017; Rafaeli and Vilnai-Yavetz, 2004). Because definitions of the different model constructs were not always similar, we relied on Norman's (2004) level of analysis to categorize different models' constructs to the different dimensions that were either task-, experience-, or image-oriented dimensions. Exploratory methods helped in identifying six factors which suggest that each of dimension comprises two sub dimensions. Because some factors were more correlated than others, and measured correlations between unrelated factors were high, we concluded that although dimensions are theoretically distinct, perceptions of technological product dimensions converge because people use on product quality such as aesthetics (belonging to an experience-oriented dimension) to conclude the quality of pragmatic product attributes (belonging to a task-oriented dimension). Future research should explore technological product evaluations based on one sub-dimensions to represent each product dimensions, in order to control for interrelations between sub-dimensions, while still maintaining content validity.

Keywords: User-interface, technological products, simplicity, preference, ease-of-use, aesthetics, symbolism.

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OPEN INNOVATION IN PUBLIC ORGANIZATIONS: EVIDENCES IN SMART CITY PROJECTS

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ABSTRACT

OBJECTIVE(S)

City officials are facing increasingly complex challenges. On one hand, as urbanization rates grow, cities face higher demand for services from a larger and more densely distributed population. On the other hand, rapid changes in the global economy are affecting cities that struggle to adapt to these changes, often resulting in economic depression and population drain. "Open innovation" is the latest answer and approach developed both in public and private organizations in order to answer on how new technologies can address the volume and complexity of challenges for cities and governments in general.

Thus, this paper arises due to the emergence of the growing phenomenon of "smart city" in which public organizations cover a leading role in the development of new and innovative "smart services" in cities (e.g. Desouza and Mergel, 2013; Ferraris et al., 2017) with the final aim to increase the quality of life of citizens (Alves, 2013; Ferraris and Santoro, 2014). The main objectives of this paper are: a) to explore the open innovation approach of public government in the development of smart city projects; b) to highlight best practices in the co-development and co-delivery of new smart services with other city's stakeholders; c) to explain why and how an open approach can be successful in the development of smart city projects.

RELEVANT THEORIES

In the last years, open innovation approaches are gaining popularity across all levels of government (Desouza and Mergel, 2013) and an increasing number of public organizations are participating in Open Innovation strategies (Lee et al., 2012; Alves, 2013). Most approaches can be defined as experimental lighthouse projects, and each case is situated in its own political and legal environment, with a diverse set of unique public management problems (Desouza and Mergel, 2013). However, Open Innovations strategies in public organizations differ from private organizations in a number of

ways: a) the decision making process; b) the commitment to public services; c) the possess of weak absorptive and innovation capabilities.

In first place, decision making processes in public organizations are moderated by political action and strict bureaucratic processes, creating significant organizational slack and misalignment of objectives with private partners (Damanpour, 1991; Rangan et al., 2006; Rufin and Rivera-Santos, 2012). Regarding the decision-making approach, public organizations are subject to multiple external authorities and have more internal bureaucracy (Perry and Rainey, 1988). In second place, public organizations are "committed to public services" (Perry, 1996) and focus more on long term and non-pecuniary impact of innovations (Damanpour and Schneider, 2009; Kivleniece and Quelin, 2012) and on mitigating market failures (Edler and Georghiu, 2007). In third place, public organizations have weaker absorptive capacity and innovation capabilities because they do not need to compete and therefore have a lower pressure to innovate (Damanpour and Schneider, 2009). Finally, weak absorptive and innovation capabilities held by public actor represent one of the main driver of "cooperation failure" (Lhuillery and Pfister, 2009). This because an efficient knowledge sharing process implies that the scientific or technological distance between partners may not be too large (Inkpen and Beamish, 1997). Usually, the technological knowledge held by the public actor is very poor and firms face some difficulties in dealing with them. This because of lack of incentives, insufficient funding, short term pressures associated with politics and the concern of re-election then the need for public support.

METHODS

In order to examine our research question, we adopted a multi-case research design (Yin, 2009). A case-study methodology enabled us to maintain the complexities and contextual contingencies involved in open innovation practices in public governments. We consider this exploratory methodology an appropriate approach to our goals given limited existing research investigating aspects related to open innovation strategies of public organizations in SCPs. Moreover, case study methodology is useful to get a better picture when the phenomenon is new and underexplored, by ensuring high-conceptual validity and understanding of context and process thus fostering new hypothesis and research questions (Yin, 2013). In detail, we have studied the strategies of five public governments in EU smart cities. The research is an ongoing project so more insights will be added in the full paper. Semi-structured interviews lasting 2 hours with public high level officials have been carried out between 2017 and the early 2018.

MAIN FINDINGS

Accordingly to our preliminary results, we are able to understand how innovation and technological forecasting have turned in revolution of industry dynamics, suggesting “open innovation” as strategic model to help organizations to adjust to ever-shifting knowledge accruals by public actors, considered at the same time as “creators” and “destroyers” of funding for innovation. This new approach shows that public organizations should be considered as entrepreneurs and innovative firms, becoming more collaborative as the market expands beyond their original concept. Reasonably, the pattern of public strategy in a open alliance is determined not only by the plans and actions of its leaders but also by forces in its internal (which is external for the organization) environment. The Smart city and its development find a fertile breeding ground in the governance capacity of complexity, whether it be institutional, planning, communication, economic, organizational. In particular, a Smart city can't exist without a model of dialogue among the various entities that provide public services, commissioning share of their assets, and their communication channels to the city. Public governments have to prove to be able to improve the quality of life of citizens using integrated technologies solutions from a solid organizational culture, individual rights, the care of the common areas (including digital ones) and respect of the public spaces (defined as what the public affairs to be protected). The involvement of the territory is therefore crucial, and can be stimulated through: a) the listening and management of stakeholders' needs, motivation and synergies with other actors in the territory (utilities, transport for example); b) action planning, including analysis of impacts (privacy, usability); c) communication strategies to support the long-term program and, d) appropriate tools, measurement of interventions according to objective criteria, reporting the results and benefits at the territory.

Moreover, the governance model of Smart city should, therefore, ensure ideational-processing and operational continuity/realization/management, representation and inter-institutional collaborations, also to ensure visibility and make desirable adhesion and support of each stakeholder within city ecosystem. Public governments that want to get a good leading on smart city projects need to work on transversal policies, which, using the technologies, it is proposed to significantly develop the city and its development dynamics, to include marginalized groups and improve accessible services. As for the internal organization, however, it must put in place an open governance, dialogue, relationship with citizens, associations, companies and universities; should provide for the construction of teamwork and multidisciplinary steering committee (the project not as an "initiative of the technicians") able to build synergies between the policy on "vertical" themes.

Another key point is the rigidity of management tools and implementation of the policy - which depends on national legislation and by the gap between the innovation represented by the territorial experiments and the logic of domestic production, and regulation. They have a negative effect on

innovation processes and along with an high tendency to over-regulatory legislation makes it difficult to achieve the objectives, even in the presence of resources for the Smart City project.

Keywords: Open innovation, Public Government, Public Organizations, Smart City projects, Smart City.

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PROJECT RISK MANAGEMENT IN SMALL AND MEDIUM-ENTERPRISES: FIRST RESULTS FROM AN EMPIRICAL ANALYSIS

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ABSTRACT

INTRODUCTION

The Project Management (PM) applies knowledge, skills, tools and techniques in order to achieve a project's goal. Following the PM framework of the Project Management Institute (PMI, 2017), the PM process is divided into 5 phases (initiation, planning, execution, monitoring & control and closure), requiring 10 knowledge areas to be performed. Among them, Project Risk Management (PRM) is recognized as a relevant and integral component of the PM, according also to the ISO 21500:2012.

Risks can affect organizations in terms of economic performance, business continuity, reputation, environmental and social outcomes, therefore, the management of risks supports organizations in reaching their targeted objectives, reducing potential losses and exploring new opportunities in an environment full of uncertainties (Radner and Shepp, 1996; ISO 31000:2018). The literature classifies risk management (RM) into 9 different streams, being PRM one of them (Verbano and Venturini, 2011). The PRM process involves defining objectives, identifying possible sources of uncertainty, analyzing them and formulating managerial responses to risks and opportunities (Thevendran and Mawdesley, 2004).

In the last years, many companies, from different types of industries, have adopted PRM, given its crucial importance to support them into achieving their project objectives. However, PRM diffusion is limited mainly to large companies, leaving a lack of empirical evidence addressing small and medium-sized enterprises (SMEs) (Kim and Vonortas, 2014).

Nevertheless, SMEs, and particularly those that systematically work by project, also need to conduct their projects effectively and through PRM they could be more aware of project risks and, consequently, be more prepared to face/avoid them. The tools, techniques and procedures used in PRM by large companies are either too complex for SMEs or demand resources that are beyond their capability (Brustbauer, 2014). SMEs are more vulnerable to risks than the large companies (Alquier and Tignol, 2006), so they do need PRM, but the process must be adapted and affordable for them, so that it can be successfully and efficiently implemented.

So far, PRM is neither much studied nor widespread in the SMEs (Marcelino-Sádaba *et al.*, 2013). Conducting a bibliographic search in Scopus and Web of Science databases using different

combinations of the keywords “risk management”, “SMEs” and “small business”, only 6 papers about PRM in SMEs were found, after the exclusion of proceeding papers, editorial materials, non-English language papers and not pertinent articles, based on full-text analysis.

All 6 papers were empirical studies: three case studies and three model proposal & testing. Three were applied in the industrial sector, two in the service sector and one to both sectors. Half of these studies contemplated all project risk types and only in two of them all PRM phases were applied. Given the abovementioned results, it is possible to conclude that there is a significant gap to be fulfilled with new researches.

The final objective of this research is to investigate how is it possible to adopt PRM in SMEs with a positive cost-benefit ratio. In particular, RM phases, activities, tools, instruments, procedures and organizational aspects that enable the effective implementation of PRM in SMEs will be considered, in order to grasp guidelines to promote its adoption and improve PM.

OBJECTIVES AND METHODOLOGY

Given the nature of the objective of the research and the gap of studies in the field, the case study methodology has been chosen, coherently with the exploratory and explanatory purpose of the research (Yin, 1994). In more details, in this extended abstract, the first stage of the above-mentioned research will be presented, aiming specifically at developing an empirical framework to analyse the application of PRM in SMEs and testing it in a pilot case study. This framework will be used in the next stage of the research to conduct a multiple case study focused on projects in SMEs in which the PRM was adopted with a positive cost-benefit ratio. Moreover, in order to cover different types of contexts, the projects will be selected based on the size of the company (small or medium companies) the company's production organization (organized by process or by projects).

Authoritative books and articles about research methodologies were carefully consulted (Eisenhardt, 1989; Yin, 1994; Tellis, 1997; Scholz and Tietje, 2002; Voss, 2002; Creswell, 2007), in order to consider all the necessary steps to build a robust research protocol for a multiple case study. With the aim to collect the fundamental dimensions to be inserted in the framework of analysis, first, empirical papers regarding the application of PRM in SMEs have been examined to grasp the relevant variables (Alquier and Tignol, 2006; Leopoulos *et al.*, 2006, Tang *et al.*, 2010; Neves *et al.*, 2014, Marcelino-Sádaba *et al.*, 2014; Pereira *et al.*, 2015). Secondly, papers about the application of PRM in large companies (Guo *et al.*, 2013; Liu *et al.*, 2015) and consolidated manuals about PM and PRM (e.g. PMBoK, 2017) have been analysed, to extend the dimensions of the framework. Summarizing all the items and checking their coherence with SMEs context, the questionnaire has been created.

The resulting questionnaire will be used by the researchers to conduct in person direct interviews to two respondents and will not be filled by the interviewees alone. To ensure the project's internal validity, using triangulation, and increasing data reliability (Voss, 2002), in-depth interviews with multiple respondents will be integrated analysing documents related to PRM plan and outcomes.

The testing of the interview protocol has been finally performed developing a pilot case study, with the aim to reveal potential improvements, permitting a refinement of the questionnaire, which can lead to an increased validity of the results (Yin, 1994, Pruzan, 2016).

PRELIMINARY RESULTS AND CONTRIBUTIONS

The resulting questionnaire is divided into 9 sections: general description of the company and of the project, PRM process implementation, a section for each PRM phase adopted, and the PRM outcomes, in which the costs and benefits of PRM adoption are evaluated and discussed. It includes close-ended questions to contextualize the project with some specific information, open-ended questions to describe a phenomenon or to understand the opinion or experience of the interviewees and perceptive close-ended questions using 5-point Likert scale, to assess agreement or disagreement and measure attitude.

To perform the pilot case, a project from a consulting company has been chosen because of the wide PM experience of the respondents (a project manager and a sales manager highly involved in the project) and for their willingness and interests into cooperating. The project aim was to implement a cost estimating system for an industrial company in Engineering & Construction sector. The project team, formed by 7 people, worked for 3 years on the project and 3 of them were involved in the PRM for 20 days. All PRM phases were applied to the project and different techniques and tools were used, such as stakeholder analysis for the risk identification, risk matrix during the risk analysis, risk mitigation for the risk treatment and change request monitoring in the last PRM phase. The project was successfully completed and both interviewees perceive the use of PRM as one of the critical success factors, as many benefits were perceived due to its adoption: PRM allowed to improve project planning, budget control, decision-making process and, finally, the project's performance. According to the Project Manager, the cost-benefit ratio is definitely positive, which stimulates the adoption of PRM in other projects as well.

This pilot case allowed the researchers to test and improve the questionnaire identifying incomplete or unclear information (e.g. the evaluation of the strategic relevance of the project was added and the classification of the end user into internal or external was specified).

Comparing the results of this pilot case study with the others that will be collected and analysed in the future step, it will be possible to grasp guidelines to efficiently and effectively implement PRM in

SMEs. From an academic point of view, these results, although initial, represent a significant contribution since in the literature a framework to analyse the application of PRM in SMEs is missing.

Keywords: project risk management, SMEs and case study

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(References are available on demand)

THE HEALTHY DIET - THE BEST OUTCOME OF THE AGRICULTURAL DEVELOPMENT USING EUROPEAN FUNDS

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ABSTRACT

The European Commission Country Report for 2018 outlines the progress made by Romania in the field of structural reforms, prevention and correction of macroeconomic imbalances and the results of in-depth reviews under European Union Regulation No.1176/2011. Nevertheless, despite some apparent progress "Romania is still below the European average standards" (European Commission, 2018). The main causes of mortality, although declining, are mainly due to cardiac disease and stroke but also due to certain cancers that have increased dramatically. The causes are complex, all directly influenced by the socio-economic situation, the environmental pollution, the scholar abandon, the discrepancies in nutrition; all these factors influence dramatically the health status of the entire population. There is no way to move on and restructure the country without a deep understanding of the real causes.

This paper will identify the main factors that delay the socio-economic development and what can be done to sustain the country and citizens health.

At the same time, we will present some hints on how the European funds allocated to Romania through the European Agricultural Fund for Rural Development (EAFRD) can support the implementation of the innovative measures to improve the quality of life, especially in the rural communities and create the initial conditions for local development (European Commission, 2014).

PRESENTATION

The analysis starts with the fact that most of the health indicators for Romania are below the European average standards no matter the national and local efforts to change the situation. According to the Strategy of development for 2014-2020, the major objectives are associated to the health risks related to environment state of the art (air and water pollution, soil uncultivated according to the modern standards for healthy food, existence of radiation, destruction of forests. This entire act as environmental and climatic stressors that affect people, food, life inside the community at all levels. The lack of interest, motivation and responsibility became general in the absence of a vigorous strategy for multiannual and multidimensional development. Neither decision-makers nor population are responsibly aware of the impact of the situation on along run. There is a high need for people and institutions to get acknowledged of the environmental risks and measures of prevention be taken as

soon as possible to diminish the effect on health and country destruction. In this respect, the following Strategic Guidelines / Measures were foreseen in the National Health Strategy 2014-2020 to ensure the general development especially in the field of agriculture, to assure the health, safety and security of individuals no matter the age, gender, economic situation. Therefore it is necessary to:

- correlate the normative framework and the national practices regarding the community health policy with the environment ones and the allocation of necessary resources,
- strengthen the technical capacity at national/regional level to meet the real needs that country and people have; increase staff training especially in those areas related to environmental health, occupational health, food safety in order to be able to respond as accurately as possible to environmental issues and threats, including those associated with emerging climate change, developing information systems that allow the storage of information and the possibility of correlating the database with other relevant databases (with socio-economic information),
- provide citizens with large access to information on health deviations/identified environmental risks and health protection measures, including vulnerable groups. (Gov. of Romania, 2014).

The Recommendation 19 of the Treaty on the National Reform Program of Romania clearly stipulates that Romania's population is facing a precarious health situation; therefore, the access to qualitative services of health and care is affected by the insufficient number of medical staff remained to work in the country, the inadequate funding from the national budget, the excessive dependence on hospitals, the existence of a strong endemic corruption that keep away from treatments especially the low-income people and those living in rural areas. In response, Romania has decided to take 'specific measures in the medical field and beyond' (European Commission, 2017) to adjust the situation and improve the socio-economic and demographic conditions of work and life. Taking into account that only five years ago, 45% of the Romanians lived in the country, concentrated in approximately 87.1% of the country's total land area, it becomes obvious the need of political interventions and decisions to change the future of the rural areas. In this respect, the European Commission allocated Euros over 8 billion of Euros, under several programs of development of which the most important are: the European Agricultural Fund for Rural Development (EAFRD) and the 2014-2020 Partnership Agreement with Romania. (E.C., August 2014). The variety of geographic territory, the structural diversity of the agricultural sector (64.2% - arable land, 32.9% - pastures and natural hay, 2.8% - plantations of trees and vines) provide lots of opportunities and potential to develop ecological agriculture and produce organic food both for domestic consumption and accredited exportation. There are plenty of opportunities provided by the national potential, related to the environment and climate, such as:

- high share of agricultural and forestry land generating ecosystem services characterized by a high biological diversity that contribute to the conservation of biodiversity,
- high coverage of important environmental protected areas from the perspective of the sustainable management of agricultural and forestry land,
- natural resources in good conservation status,
- reduced use of agro-chemical inputs (fertilizers and pesticides) at national level,
- good quality of chemical and ecological water resources,
- significant area of agricultural land under agri-environment commitments promoting extensive agricultural practices with a low environmental impact,
- overall low level of greenhouse gas emissions in agriculture.

All the above prove the natural conditions that may create the premises for the production and processing of organic products at European standards (MADR, 2014).

Considering the Recommendation No.24 of the Council of Europe's National Reform Program for 2017, according to which "over 45% of Romania's population lives in rural areas, which remain far behind urban areas in terms of access to the labor market and education, services and infrastructure as well as material welfare and in response to other recommendations linked to the access to integrated public services, expanding the basic infrastructure and encouraging economic diversification, especially in rural areas, Romania adopted in 2016 a comprehensive set of measures on rural development, modernization of small farms, investment in infrastructure, including social services and education, as well as on the formalization of working relationships.

The long-term success of these measures depends now on Romania's capacity to deploy its pilot actions on a wider scale and identify and effectively absorb available EU funds" (EC, 2017). We can say that for the 2014-2020 programming period EAFRD funding promote the increase of innovation and competitiveness in the agri-food sector, as well as the accreditation and validation of those products bringing added value on the market. If farmers are motivated to use European funds, they will be assisted in the development or restructuring of their own businesses and the diversification of their economic activities to reduce the existing dependence on agriculture and improve the outlook for job creation in rural areas. This can be correlated with a careful management of natural resources, centered on preserving Romania's rich natural biodiversity and promoting the sustainable management of agricultural and forestry lands.

This way the rural poverty can be combated through sound investments aimed at modernizing the basic infrastructure and improving the access to services, in order to improve the quality of life in rural communities and create prerequisites for local development" (EC, 2014). This way the country

side areas can become the tributary for the organic farming development and with it the vehicle of change for the general status of health of the country.

ORGANIC FARMING

The organic farming is already a known and dynamic sector in Romania, given the growing trend of organization and marketing of this type of products. The certification of organic products is conferred by the eco-label affixed to products accompanied by the organic label "ae", specific to organic products. This certification, ensured by inspection and certification bodies represent the Ministry of Agriculture and Rural Development's validation, as an open door to the developed markets, based on the criteria of independence, impartiality and high competence set out in Order no. 895/2016 for the approval of the Rules on the organization of the inspection and certification system, the approval of the inspection and certification bodies and the supervision of the control bodies' activities. The role of the organic farming system is to produce healthier food, more suited to human metabolism, in full correlation with the conservation and development of the environment. One of the main purposes of organic farming is the production of fresh and authentic agri-food products that respects the natural and environmental conditions.

The use of genetically modified organisms (GMOs and their derivatives) for fertilizers and synthesis pesticides, growth stimulators and regulators, hormones, antibiotics, etc. is prohibited in the production period on the farm. In the food processing stage, it is forbidden to use food additives, complementary substances and synthesis chemicals for the preparation of organic food. Organic farming has a major contribution to the sustainable development of agriculture, the growth of economic activities with significant added value and the increasing interest in rural development (MADR, 2014). Together with other certified products, validated in the ecological, traditional or religious system the Romanian market of organic products could change the destiny not only of Romanians' and their market but also of all foreigners that enjoy healthy food and diet of high quality and are able to receive happiness and wellness through the plate.

Keywords: Health status, nutrition, non-reimbursable funds, quality of life, standards

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EFFECTS OF CULTURE ON INVESTORS' RISK TOLERANCE

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ABSTRACT

Purpose - The aim of this study is to empirically examine culture's effects on individual (small) investors' risk tolerance profile.

Design/methodology/approach - Using questionnaires divided into three sections: respondents' demographics, respondents' culture on the grounds of Hofstede's six cultural dimensions and respondents' risk tolerance, on the grounds of Grable's and Lytton's (1999) risk tolerance parameters, data was drawn from an $n=200$, convenience sample of individual (small) investors mainly from Athens Greece. For the analysis, statistical techniques like Pearson's correlation analysis, MANOVA and regression analysis were employed.

Findings - The analysis indicates that private investors have a medium risk tolerance and the tolerance to risk is negatively related to uncertainty avoidance. Therefore, investors' higher income, as well as investing experience is positively related to risk tolerance. Power Distance is negatively related to financial risk tolerance and the same applies to Individualism. On the other hand, Masculinity and Indulgence are positively related to financial risk tolerance.

Practical/Research implications - Even though there are several studies on the effects of national culture on investors' risk tolerance, in both emerging and developed market, so far, there is no emphasis on the effects of personal cultural characteristics on individual's financial risk tolerance of individuals. Furthermore, the majority of studies, in the literature, on the effects of culture on risk tolerance focused on institutional investors. This study concentrates on individual (small) investors in Greece, a market of significant cultural distance from markets like USA, UK, Western Europe and Asia, on which the majority of published studies, in the literature, are focusing.

Originality/value - This study attempts to contribute to the discussion on the effects of personal cultural traits on risk tolerance of individual (small) investors, for which not enough is known so far. .

Keywords: Demographics, culture, risk tolerance, investors, Greece

DOES THE SWITCH TO IFRS 11 BENEFIT THE VALUE RELEVANCE OF CO-VENTURERS' CONSOLIDATED FINANCIAL STATEMENTS?

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ABSTRACT

International Financial Reporting Standard (IFRS) 11, *Joint Arrangements*, issued by the International Accounting Standards Board (IASB) in 2011, removed proportionate consolidation as an option to account for joint ventures in consolidated financial statements, requiring all co-venturers to report their interests in joint ventures using the equity method. The IASB's decision is not supported by the extant accounting literature and many respondents to the IASB's Exposure Draft 9 (2007) did not agree with the abandonment of proportionate consolidation (Alexander *et al.*, 2014). We aim at verifying whether the elimination of the choice between the equity method and proportionate consolidation has value relevance implications. We apply pooling time-series and cross-sectional regression models to investigate whether the mandatory switch to the equity method affects the ability of the co-venturer's total assets and liabilities to explain firm value, as measured by Tobin's Q. The two accounting methods ultimately lead to the same total shareholders' equity and net income, but result in significantly different qualitative and quantitative representation of the group's results. Some key financial ratios may differ markedly when based on proportionate consolidation rather than on the equity method (Stockinger and Leitner-Hanetseder, 2014). Due to these differences, the literature has focused on demonstrating the supremacy of one method over the other, with mixed results.

In favor of the equity method, scholars argue that proportionate consolidation would not respect the IASB's definition of asset and liability, as the co-venturer cannot exert unilateral control over the former and is not responsible for the latter, making their presentation in the consolidated financial statements conceptually incorrect (Milburn and Chant, 1999). Furthermore, the equity method makes it possible to recognize separately the investment in joint ventures whose core business significantly differs from that of the co-venturer and avoids the aggregation and the "confusion" of assets and liabilities characterized by different risk levels.

On the other hand, according to a number of studies, proportionally consolidated amounts allow for a more accurate prediction of the co-venturer's profitability (Graham *et al.*, 2003; Leitner-Hanetseder, 2010) and have a stronger association with some variables assumed as proxies for market risk, such as share price volatility (Kothavala, 2003), bond ratings (Bauman, 2007) and bond risk premiums (Stoltzfus and Epps, 2005). Research also highlights the drawbacks stemming from the equity method

which hides relevant information such as joint venture liabilities (Bierman, 1992). The value relevance of financial information can increase if the disaggregated data of joint ventures is disclosed (Bauman, 2003; Soonawalla, 2006; O'Hanlon and Taylor, 2007). Such disclosures can benefit financial analysts as well as reduce information asymmetry between market participants (Maines *et al.*, 2000; Lim *et al.*, 2003).

Finally, Richardson *et al.* (2012) have analyzed the effects of the decision of the Canadian standards setter to abandon the equity method in reporting for joint ventures in 1995, demonstrating that firms forced to switch to proportionate consolidation experienced a decrease in value relevance of their total assets and liabilities.

To the best of our knowledge, the effects on the value relevance of the information content of co-venturer's consolidated financial statements are relatively unexplored in a continental European setting (Lourenço *et al.*, 2012), in particular with reference to a period including the shift to IFRS 11.

In the vein of Richardson *et al.* (2012), we analyze the consolidated financial statements for a sample of 120 French and Italian non-financial listed firms over the period 2008-2015, and investigate whether companies that preferred proportionate consolidation to report for joint ventures before adopting IFRS 11 suffered a decrease in value relevance of total assets and liabilities due to the mandatory change to the equity method.

We use Tobin's Q as a proxy for firm value. Tobin's Q allow us to analyze the effect of the abandonment of proportionate consolidation on the market value of a company, taking into account firm size in terms of the value of the company's assets. We find that firms that were obliged to switch to the equity method experienced a decline in value relevance of their total assets and liabilities. Companies that used the equity method even before IFRS 11 came into force do not show any significant effect on the value relevance of their total assets and liabilities.

All in all, our results, taken together with the findings of Richardson *et al.* (2012), suggest that it is the decision to eliminate the choice between the equity method and proportionate consolidation that has a negative impact on the value relevance of fundamental financial statement figures.

Keywords: joint ventures, IFRS 11, equity method, proportionate consolidation, value relevance

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LEADERSHIP AND MOTIVATION STRATEGIES OF EMPLOYEES IN MULTINATIONAL COMPANIES

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ABSTRACT

People from middle and top management have begun to give more and more attention to the development of the working environment because of the motivational factors that determines the increase of the professional involvement and the productivity of the employees.

The motivation resides in the cognitive difference between the mediocrity and the excellence levels. The companies perceive motivation as an intrinsic resource linking the employees to their leadership model; in this case we can affirm that the motivation is the main factor that brings together the goals and strategies of the organization.

Experts consider that the employees perceive their added value by additional source of generating returns. Thus, if the employees see that their involvement is rewarded, they will want to achieve always that type of behavior. As a consequence, the today's businesses have begun to emphasize all types of rewards both on short and long term.

INTRODUCTION

Motivation of employees through material rewards. Maslow's pyramid has been used by scientists to outline different aspects of market and society, having the needs in the center of all activities. Salary remains an important stimulus for employees as it satisfies most of their needs, no matter the level where they are situated. The basic needs to cover food or satisfy the individual or home security have moved today towards the upper level of Maslow pyramid, and refer more to the needs of keeping the high-esteem and well-being.

The IBM founder, Thomas J. Watson believes that a direct reward is required to motivate employees; so he writes checks for the performing employees. Remington Products Company put in practice the creation of a special fund for rewarding employees with special merits.

A cash reward is perceived as the strongest way to motivate the employees. The implementation of an attractive scheme of wages could also be considered attractive and with a high impact on employee's performance. If such decision is mixed with other elements such as a good work environment or a transparent communication, the salary becomes motivational only for a short term (only 2-3 months). In this case, despite the short term motivation, the salary impact can demotivate the employees.

Motivation through non-material rewards. The non-material rewards are also important for both employees and employers. The employers can recognize the employees' merits by verbal encouragement, sharing their results, giving to them the trust expected and, implicitly, granting them with special responsibilities. "Employees can be motivated by intangible rewards; the secret is that those rewards should be offered on a regular basis even for actions that do not bring significant value to the organization" (Afuah, 2003).

There are different methods of motivating and rewarding the employees.

The application of principles of equity, when providing material or non-material rewards, generates at employees the expectation to receive, from the head of their institution, the equivalent of their motivated and skilled efforts. Hence, the theory of fairness switches into the fundamental of a motivational strategy, a transparent, clear and equidistantly answering at all employees' questions. The company must set the employee's goals as equitable and including individual goals related both to the seniority level of the employee and the group's performance goals, teamwork spirit and sense of collegiality. "By setting group goals, individuals are determined to realize that their personal implication contribute to the performance of the group; so in an indirect manner the employees are determined to amplify the side of an unselfish behavior" (Isac, 2007).

Another method of motivating people is related to their involvement in the decision-making policy, within the company. Employees' participation in the senior management meetings provides a better visibility of the work environment, a better understanding, from bottom to up, of the strategic decisions or company's evolving plans. In the same time, the employees shape the idea of personal development keeping the step with the company development; then their determination contributes more to the success of the company.

An efficient leadership is another way to motivate employees. The leader strength is linked to the ability to provide feed-back. The system of feed-backs is perceived as an important tool to develop, learn and help employees achieving their goals. Feedbacks can also be interpreted as a bivalent instrument used by companies to communicate the results obtained in relation with the objectives set. Receiving feedbacks means to be informed about the status of any action being compared with goals purposed or finding alternative answers. The best moment to provide feedback is post-factum; they must be "specific, without interpretations and related to the actions of the person who is receiving the feedback" (Popa, 2004).

Specialists identified three types of feedbacks: a) positive feedback, b) improvement feedback, and c) negative feedback.

Positive feedback offers confidence, increases the outcomes through the fact that the employer recognizes the employee's merits and the adopted concept is *win-win*. They might take the shape of the

hardening feedback as expression of admiration or the appreciation of the effort. Once the employees' actions are noticed and recognized by superiors, the appreciation felt makes them to move on and to work even harder. In such situation, the positive feedback impact grant companies with free investments from their employees.

The improvement feedback is intended to minimize the unwanted part of a behavior and the employee understands which points should be improved in order to make corrections in that way. The concept used is also *win-win*. Improvement feedback bears the name of corrective feedback because it is based on the initiation of constructive criticism. In order to have a positive impact on the employee's activity, the superior must clearly identify the mistakes to be improved.

Theoretically, the negative feedbacks are never recommended as they can easily be understood as potential accusations when clear explanations are not provided. Therefore, it is preferable to replace the negative feedback by addressing the principle of improvement feedback. According to specialists, the negative feedbacks represent management error. The employees could get stuck in a state of mistrust, could reduce performance and confidence in their own forces and capabilities and stop looking for the deep meaning of truth. (Goleman & Boyatzis, 2007).

MOTIVATION OF EMPLOYEES - ESTIMATED RESULTS

Apart from these basic techniques, the company have handy other principles related to the company's success to motivate their employees.

The first principle is the safety of the work environment; most of the employees like working in a stable environment, without fluctuations, preferably in a rising company in order to have more career development opportunities. A motivating salary a highly qualified manager may attract people and motivate them working hard; working in an unstable, unsafe environment, causing stress and discontentment, will push away even the best employees as they need to feel safe from all perspectives and trust people they work with or for. (Erwin & Garman, 2010; Bareil, 2013). In general, the employees need to build confidential relationships with colleagues and help each other in their daily tasks. Sharing tasks in a natural way gives the feeling of belonging to a group; also the managerial support confers greater security on the employee's own strengths both in fulfilling their routine tasks or process improvement and speaking initiatives.

The second principle is related to paying attention to each employee with a detailed analysis of his behavior which involves the discovery of their hidden talents. When tasks are repetitive, the work becomes redundant and the employee's ability is not always relevant for superiors; in such conditions, there is the risk not to discover the real high potential of some team members (Barker & Cole, 2009).

The third principle keeps the balance between the personal and the professional life by minimizing the pressure on employees. The design of some particular activities like team building meetings, short Friday concept can increase the employees' comfort and performances as employees might be determined to finish their usual tasks in a shorter time in order to obtain specific benefits. The tele-work concept (working from home) is another way to offer a balanced life to employees. This concept involves working from home some days of the week or the introduction of the flexible program that supposes that each employee works 8h/day but he is able to set his own program according to the personal needs.

MOTIVATION OF EMPLOYEES – A SWOT ANALYSIS

The employees' motivation provides companies with many benefits, such as: reduced attrition, costs decrease, increased loyalty of the employees. Put in a SWOT matrix they look as follows:

Figure2. Motivation of employees – SWOT analysis

Strenghts	Weknesses/ Threats
Productivity Increased	Investment (Money and Time) in Employees Development
Process Secured	Over-Valuation of Employee
Attrition Reduced	Premissiveness Increased
Company Development through Employees	
Costs Reduction	
Opportunities	
Employees Development with the Company Growth	
Company Recognized as Employees Oriented	

Source: Personal Interpretation

CONCLUSIONS

More and more people from top management consider that is not enough that only the leaders get acknowledged and have the overview of the process or communication skills; nowadays it is important that the employees cultivate such skills as well. To behave productively and motivated is almost a self task; it also depends of the teams' manager because they are the first who can create a peaceful atmosphere and avoid irrational criticism of subordinates. This is the main reason that the managers of success look for new ways to create a better working environment, a potential family environment in order to relieve the feeling of fear, increase the confidence of people in their skills, in their potential, in their own work. According to the most recent studies, such approach increase the employees' motivation with 40% making life and more pleasant, more profitable.

Keywords: leadership, employee motivation, performance.

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METHODOLOGICAL BASES OF MODULAR DIGITALIZATION OF THE ENERGY SECTOR OF RUSSIAN ECONOMY

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ABSTRACT

Today's tendency in the energy sector is the formation of innovative strategies of transition towards high-tech economic development. This is due to the growth of cyber-physical security, the emergence of new challenges to national and international security at the global level in the process of networking peer-to-peer production P2P (Peer-to-peer). This trend laid the bases of an egalitarian society based in the collective solution for the climate change problem. Which is implemented on the voluntary participation of all parties in a decentralized network system of production, self-organization and formation of their own regional strategies.

The countries' connection to the cyber-physical systems demand the integration of economies. This entails the creation of network's additional value and modular digitalization of the joint systems of production of many branches in a complex economic environment. This can be done by rationalizing the level of network segmentation on the basis of introduction and application of global open standards of functional compatibility and parameters of quality of the electric power worldwide.

The analysis of threats of a homeland security of the state upon transition to high-tech economic development allows to allocate a number of problematic issues at the present stage of formation of regional strategies for the modular digitalization.

In this article, the authors confine themselves to an examination of the methodological foundations of modular digitalization of the energy sector in the Russian economy.

The world lives today an era of the third industrial (or digital) revolution which is gradually transformed into the fourth industrial revolution, or "the Industry 4.0". It is characterized by the merge of technologies and blurring of borders between physical, digital and biological spheres on the basis of "cyber-physical systems" in production. It is supposed that these systems will unite in one network in order to communicate with each other in real time. Even more, they will be able to run production without the participation of human beings.

The production's automation which began in the middle of the 20th century, had narrow down specialization in which control systems were developed for each enterprise separately, and were not scaled. Then on the basis of the new technological revolution global industrial networks have been

developed. Some of the key drivers in these networks are cloud technologies, new ways of collecting and analysis of big data, crowdsourcing, economy and biotechnologies.

In the current 21st century, societies have entered in an absolute new stage of development. The "modular digitalization" as the new economic trend created on the economy of knowledge which cardinally differs from the economy of production of goods. "Modular digitalization" acts as the universal accelerator in the development of the economy and society. This entails an expansion in new forms of cooperation, innovations in data management, databases of the Internet of Things (IoT), redesign of industry, openness of innovative programs and services for all systems. The expansion leads to the formation of digital infrastructures and connectivity opportunities of new electronic means of communication.

Based on technological singularity and exponential technologies it can be observed that there is a steady tendency to increase the level of integration and multiple connection of smart devices.

Connecting a country to the cyber-physical systems requires the integration of the economy through the creation of network cost and modular digitalization of integrated production systems in a number of industries. The standardization of the network segmentation is based on the introduction and application of global open standards of interoperability and power quality parameters.

The energy power industry, in the context of formation of the new digital architectural model, acts as the bases for future civilization being able to resist to global societal, environmental and technological challenges. Energy is accepted as the major source in the field of sustainable development all over the world for the purpose of integration of steady power systems. Moreover, it acts as that sector of the market where it is possible to reach the greatest economic efficiency. Energy power contributes to the quality of functioning of the state economic model by a harmonious interaction between the citizens and authorities. Being regarded as the foundations for public policy in many countries in the world.

Energy power in Russia is one of the cornerstones in the Russia economy and very relevant for the system of a national security. The findings of this explorative research sheds light on this sector as one of the most technically backward and economically ineffective in Russia. Thus, considering the need for reduction of part of the imported fossil organic types of energy resources and the replacement with their alternative types of energy resources, including secondary energy resources like waste energy. Russia needs to take a pro-active position in the formation of a national technological initiative and to carry out the structural reforms proclaimed by the G20 as one of Russian' priorities.

In conclusion the integration of new technologies and services into the existing difficult domestic infrastructure of energy power industry calls for the implementation of essential changes. The two-way communication and intelligent devices together with bilateral information transfer, control of the

equipment and distribution of energy become very relevant to increase the Russian efficiency in the energy sector.

Keywords: digital economy, high-tech development, modular digitalization, energy sector, national security.

GLOBALIZATION OF CHINESE HIGH TECHNOLOGY FIRMS

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ABSTRACT

China seeks to develop its economy away from export oriented mass manufacturing outputs towards innovative and ecologically sustainable technologies (Chen, 2005; Gress, 2015). The Chinese government supports major research and development projects, among others, in the field of high-technology electronics such as integrated circuit chips, mobile communications, displays, digitally controlled machine tools, and batteries (Blanchard, 2008; Cai, 2012).

Academic literature provides large evidence on market entry strategies of Western firms in China (Cooke, 2006; Lee, Abosag, & Kwak, 2012). So far, broader industry research related to China mainly have focused on software and automotive (Lee et al., 2012; D. Yang, Ghauri, & Sonmez, 2005).

In the global arena, Chinese and Taiwanese electronics firms serve as technological latecomers compared to other Asian firms such as from South Korea and Japan (Mathews, 2006; X. Yang, Jiang, Kang, & Ke, 2009). Consequently, current literature on market entry strategies of emerging Chinese high-technology electronics firms, because of the relatively novelty of the subject, is rare and often built on individual case studies that indicate rather spotlight phenomena on a firm's micro perspective (McIvor, Humphreys, & Cadden, 2006; Wu & Wu, 2014).

Instead, our research benefits from longitudinal research covering leading firms representing the Chinese high-technology electronics industry. This paper contributes filling a current research from different views. We describe international market entry strategies of Chinese and Taiwanese high technology firms and how they have developed over time during the last two decades.

Due to the complexity and novelty of the research subject and minor availability of appropriate quantifiable data sets we conduct mixed research methods combining qualitative and quantitative research methods (Yin, 2014). In the first phase, during qualitative research, we have selected a sample of most important Chinese and Taiwanese high technology firms based on the evaluation of annual reports and industry surveys indicating each firm's turnover and profits. As a result twelve leading Chinese and Taiwanese firms involved in either one, or simultaneously more, value activities such as integrated circuit chips, semiconductor, electronics appliances, mobile communications, display, digitally monitoring and control and battery serve for this project. Market entry strategies (e.g. joint ventures, license, merger and acquisitions) for each of the sample firms named Acer, Asus, BenQ, Haier, Hisense, HonHai, Huawei, Konka, Lenovo, Qisda, Changong and TCL were collected and analyzed covering the period 1997-2018. Academic literature, annual reports, press releases, and

industry surveys as for example developed by IHSMARKIT (2018) serve as major secondary information source (Ding, Liang, Tang, & van Vliet, 2014). Primary information gathering through eight expert interviews conducted during IFA electronics fair in Berlin contribute to further information robustness aiming to analyze market entry strategies of Chinese and Taiwanese high-technology firms. Compared to a single firm case study our multiple case study approach delivers a broad range of generalizable data sets on market entry strategies allowing us to conduct quantitative analysis methods during the second phase of our mixed research approach (Eisenhardt & Graebner, 2007; Yin, 2014). We applied network analyzing techniques using UCINET for calculating central positioning (Eigenvector) and betweenness centrality (actor holding a bridging positioning) of each of our sample within the industry network.

As a result, we can provide evidence concerning preferred market entry strategies of Chinese and Taiwanese high-technology firms, their regional target markets as well as partner firm preferences, and their industry networking activities. We figure out most active and less active Chinese and Taiwanese firms in terms of their bilateral relationship configurations (Eigenvector) and their strategic positioning in the global high-tech industry network (Betweenness centrality). Our data were run through correlation analysis (SPSS) aiming to test variable dependencies of above mentioned and significances of our research results (Halinen, Törnroos, & Elo, 2013).

Keywords: High technology, Chinese firms, globalization, market entry, industry networks, emerging markets

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WHO SAID FEMALES ARE RISK AVERSE?

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ABSTRACT

Numerous studies on risk attitudes reveal women as more risk averse than men, (Donkers et al., 2001), (Holt and Laury, 2002), (Eckel and Grossman, 2008), (Dohmen et al., 2011). Stereotyping women as being more risk averse than men, discriminates female success in the labor and financial market, (Johnson and Powel, 1994), (Verheul and Thurik, 2001), (Fossen, 2012).

A great number of studies on risk taking behavior and perception of risk taking of individuals have been conducted in experimental lab settings on university students (Schubert et al., 1999), (Eckel et al., 2008) and university faculty members (Holt and Laury, 2002) or on the broad population in panel studies, (Donkers et al., 2001), (Dohmen et al. 2005, 2011), (Fossen, 2012). These studies are based on hypothetical lottery questions in which subjects reveal their risk attitudes. Whether subjects in such situations reveal their actual behavior towards risk is questionable. In their study, with undergraduate university students, Schubert et al. (1999) made an attempt to simulate real life situations by introducing an investment and insurance choice.

A few studies have focused on real decision-making situations of managers and professionals. Atkinson, Baird and Frye (2003) studied a group of mutual fund managers and found there was no gender difference in performance nor investment behavior. Dwyer, Gilkeson and List (2002) collected data from 2'000 mutual fund investors to investigate for gender difference in risk attitudes. Their results demonstrated that female investors take less financial risk than male. However, when the authors controlled for financial investment knowledge the observed gender difference in risk taking was attenuated. Johnson and Powel (1994) compared decision making of professionals who had not undergone formal management education, with a group of professionals who had. They found no gender difference in decision making quality and risk attitude among managers who had a formal education in management. Whilst in the group of managers without formal management education female managers exposed higher risk aversion than male. Based on the three latter studies, Croson and Gneezy (2009, p. 453) concluded that "gender differences in the general population do not extend to managers" and "the evidence suggests that managers and professional business persons present an important exception to the rule that women are more risk averse than men" (Croson and Gneezy, 2009).

One of the possible reasons why actual risk behavior of professionals confronted with real investment decisions has not been investigated further to this date is, that access to such population

data is difficult. Companies are reluctant to grant access for third parties to their databases with the concern to protect company integrity. The same applies for professional organizations, they are reluctant to grant access to their member database with the concern to protect the integrity of individual members, unless the researcher has a special status and therefore granted access to such data.

The present study is unique in the sense that it analyzes the actual risk-taking behavior in a contextual decision-making setting namely for a group of liberal professionals when confronted with real business investments decisions. Self-employed Swiss dentists, members of the Swiss Dental Association have been chosen for this study, because they embody a group of liberal professionals who throughout their professional career are confronted with high level business investments decisions in an increasing competitive environment. I, as an active member of the Swiss Dental Association was granted access to the membership database. To investigate whether female liberal professionals are more risk averse than male a hypothetical lottery question (domain of gains), a hypothetical insurance question (domain of losses) and a question on the perception of risk taking was given to the subjects. Parallel hereto, subjects were questioned about various investments levels they had engaged in during their entire career, which method of financing they had employed (external internal financing) for each investment level, personal annual gross revenue and whether they were sole owners or in a partnership.

The results reveal that female liberal professionals are less likely to be sole owners therefore prefer working in partnership ($p < 0.001$). They perceive themselves as more risk averse than male. However, when it comes to actual risk behavior in the domain of gains (hypothetical lottery question) and losses (hypothetical insurance question) there is no gender difference. Moreover, when it comes to real business investments at various levels there is no gender difference for liberal professionals in partnerships, even though female liberal professionals expose significantly ($p < 0.01$) lower annual gross personal revenue than male. When it comes to the method of financing the investment at various levels, female sole owners are more likely ($p < 0.1$) to finance an investment level of CHF 200'000 - 500'000 with bank loan or leasing than male. In addition, female liberal professionals in a partnership are more likely ($p < 0.1$) to finance an investment level of CHF 50'000 – 400'000 with bank loan or leasing than male. This provides evidence that female liberal professional businesses exhibit a higher debt/equity ratio than male and therefore are exposed to higher financial risk.

Based on these results there is evidence that female liberal professionals, embodied by self-employed female Swiss dentists, member of the Swiss Dental Association, take on higher financial risk when confronted with professional investment decisions than male, even though they perceive themselves as risk averse. The inclusion of the contextual decision-making setting, next to the hypothetical lottery

and insurance question and question on perception of risk, allowed me to analyze the gender specific risk attitude relevant to financial and commercial markets. The results provide evidence that stereotyping female liberal professional as low risk seekers is not valid in real business decision making setting.

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DIGITIZATION AND OMNI-CHANNEL IN FINANCIAL SERVICES, WHAT MOTIVATIONAL COMPENSATION STRATEGY REALLY WORKS IN THE FINANCIAL SECTOR AGAINST THE BACKGROUND OF INCREASING DIGITIZATION AND OMNI-CHANNEL?

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ABSTRACT

This research explores what sales compensation in the financial sector in Germany works, against the background of digitalization and omni-channel.

The methodology uses the triangulated method. The research evaluates beside the literature review, qualitative interviews with one Sales Manager and one representative in the university landscape about challenges in the financial sector and future customer demands in reference to the sales strategy. These interviews are the first step in research to validate research direction and are compared to each other to identify differences and similarities between both points of views. Additionally, there is a standardized survey sent to sales managers, sales people and decision makers in the financial sector. The findings are analyzed to ensure a multi-perspective view of the topic.

Some of the findings suggest that adding value by sales people in the financial sector is getting more complex. The customer's need for advice distinguishes between simple and complex products. Standard products will soon be bought without consultation and online. If a consultant is called in, the customer has already informed himself and expects a final opinion of the consultant. The true need for advice exists with complex products. Here it is the task to create transparency for the customer and to show beyond the current situation which products could become even more important in the future. The mediator becomes a coach who knows the financial fitness of his client and makes individual recommendations.

A motivating sales remuneration can be described as a transparent and easy-to-understand compensation system for sales people. A test person answered the open question, what motivates him in financial sales: "sales must be easy". This answer illustrates the importance of a simple compensation model. Moreover, the compensation system should consist of commissions and target bonus. Due to the increasing complexity in financial sales, compensation for soft factors is elementary in order to achieve motivation for the consultant. The research sheds light on leadership as one of the biggest motivators. Work appreciation forms the basis for motivating consultants by leading superiors. Therefore, the working environment has a crucial position. As part of the leadership

strategy which highly motivates financial advisors is the freedom to design its own working environment in determining the way to achieve the goal.

Finally, it should be noted that it is the task of the executive to design the elements of a motivating sales compensation individually for the financial advisers. Ultimately, every person, whether customer or consultant, is individual and would like to be treated as such.

Keywords: digitalization, omni-channel, financial services, customer demands, sales compensation, motivation,

CORPORATE SOCIAL RESPONSABILITY AND TOURISM DEVELOPMENT: A MODEL FOR THE EVALUATION OF STAKEHOLDER ENGAGEMENT DISCLOSURE IN THE HOSPITALITY INDUSTRY

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ABSTRACT

THEORETICAL ASSUMPTIONS

In recent years, firms have attached increasing importance to Corporate Social Responsibility, defined by the European Commission (European Commission, 2011) as "corporate responsibility for their impact on society" (Gri, 2013; Waligo et al. 2013, UNWTO 2016 and 2017, Bramwell et al. 2017). Nevertheless it is not yet mainstream in tourism and in particular in the hospitality industry, despite the role that these entities can take in achieving the 17 Sustainable Development Goals (SDGs), provided by the 2030 Agenda of the United Nations.

Within the Corporate Social Responsibility policies, stakeholder engagement is considered a fundamental pillar in that allows the company to interact with its stakeholders, generating a two-way dialogue that allows mutual learning. In particular, the real involvement of stakeholders should, through the development of cognitive consonance, allow the company to direct its choices towards shared objectives and at the same time promote actions of transformation and social changes (Bebbington et al 2007).

Stakeholder engagement (SE) is therefore fully part of Corporate Social Responsibility (CSR) strategies, allowing the company to pursue sustainability objectives in a shared way (it is considered a good governance tool) and at the same time representing a fundamental element in non-financial reporting. The international reference standards for sustainability reporting (Gri - G4) recognize this activity as an important role in defining the information to be communicated and the choices to be made by the company to reconcile the different expectations. One of the basic principles of sustainability reporting is the identification of the "material" activities to be undertaken following the indications received from the stakeholders.

A proactive approach to CSR requires the formalization and communication of a strategy that incorporates aspects of sustainability. Accordingly, Hotel companies must disclose information from effective involvement with stakeholders instead of the traditional legitimization and unidirectional communication with stakeholders. SE is a good CSR practice, a key strategic process for CSR, and a good indicator of firms' effective commitment to CSR

In the context of sustainability reporting, reference is made to "Stakeholder Engagement Disclosure", meaning a specific section of information or a set of contents attributable to information pertaining to the stakeholders, that includes specific aspects such as: the mapping of the same, analysis of materiality, listening channels, action taken in the company, etc.

Consider also that the interaction with stakeholders and their real involvement in strategic choices is a fundamental tool in the construction and maintenance of a solid reputation (Romenti, 2010; Jo and Na, 2012).

Nevertheless, in the hospitality sector, less attention has been paid, not only to the three pillars of growth (economic, social and environmental), but also to the involvement of stakeholders in the decision-making process and strategic planning.

GOALS

The work aims to observe the level of attention of the hospitality industry in the Stakeholder engagement process and the role of the same in the growth of a company's reputation. All this will be verified by measuring the quality of the communication of the activities of Stakeholder Engagement disclosure both in the context of non-financial reporting, and in the digital communication strategies of the companies observed.

For this reason, the paper is focused on the following objectives:

- a) Definition of a score model for the measurement of the quality of the "stakeholder engagement disclosure", to be adopted for the analysis of the contents of sustainability reports (or integrated) and of company websites;
- b) Evaluation of the consistency profile between the quality of the "stakeholder engagement disclosure" of the corporate reports and that of the corporate websites of hospitality companies.

METHODOLOGY

The study aims to carry out a qualitative analysis of the contents of stakeholder engagement disclosure, with specific reference to sustainability reports (integrated or sustainability related to the year 2016) and to the websites of the 100 Hotel companies that use the Global Reporting Initiative (GRI, year 2017).

The first step concerns the preparation of a rating model of Stakeholder engagement (SE) disclosure, defined by means of a grid of qualitative and quantitative variables (items): qualitative variables, representing the essential aspects of an SE process, will be identified by considering some of the most cited variables in the literature on the topic and the principles that regulate the quality of the SE process in the context of international standards (standard Gri); the only quantitative variable will be

obtained by adding the citations of the keywords similar to SE. Each item will be associated with a score that expresses the degree of completeness of the considered aspect.

The qualitative score relative to the SE (Se_Qual) for each Hotel is represented by the arithmetic average of each score assigned to the 7 qualitative variables compared to the maximum value attributable and multiplied by 100.

$$Se_{qual} = \frac{\sum_{i=1}^n \left[\frac{var(i)}{\max var(i)} * 100 \right]}{n}$$

The quantitative score Se_Quant represents an estimate of the volume/space attributed to SE within the documents, considered a proxy of the attention dedicated to the topic. The Se_Quant score for each Hotel is derived from the ratio between the quantitative item, Se_Count, and the total of the words used in the drafting of their documents or specific paragraphs or pages, if in a combined report (Tot_Words).

This indicator will be assigned a weight equal to each of the qualitative indicators. This ratio is then successively multiplied by a scale factor obtained as the ratio between the maximum value that the score can take (1 / n) and the maximum value of the previously obtained ratios. In fact, not having references in literature on the weight to be assigned to the quantitative component in the construction of the If score and not wanting to make a priori choices, we chose to assign a maximum value equal to the weight assigned to each qualitative variable within the score quality to the Se_Quant.

$$Se_{quant} = \frac{Se_Count}{Tot_Words} * \frac{1/n}{\max \left[\frac{Se_Count}{Tot_Words} \right]}$$

The second step involves the application of the rating model for the evaluation of corporate reports and websites. The use of the model described above requires a content analysis, a consolidated method in the analysis studies of the disclosure (Guthrie et al., 2004; Guthrie and Abeysekera, 2006). The document analysis was performed manually, without the use of specific software, due to the need for interpretation required by some aspects analyzed. The selected Hotel brands, 100 in total, have facilities located in Europe, the United States and Asia.

The results achieved were subsequently re-elaborated with descriptive statistics, aimed at identifying individual experiences and countries that can assume the role of excellence in the global panorama. The realization of a factor analysis allows us to detect the presence of areas/countries in which there is a greater attention to the topic.

CONTRIBUTION OF THE RESEARCH

The study first results confirm the low level of attention that Hotels are give to CSR, as indicated by some international surveys (KPMG, 2017), and consequently, to social and environmental issues which presents a clear reputational risk. This paper is located in the still underdeveloped international debate on whether the increasingly rich quality of sustainability disclosures, primarily CSR issues, is accompanied by adequate and appropriate SE process quality that is the expression of substantive issues in CSR. SE is analyzed by reading the information provided in Hotels' sustainability documents, leading to the limitation of the implicit assumption that these statements are true, and what is not reported is not performed.

SE appears essential to build and maintain a solid reputation in the market and to define CSR strategies in step with stakeholders' expectations and interests. The proposed model for the SE assessment process allows for observing the state of the SE process in European Hotels and identifying strengths, weakness, and areas of improvement.

The development of quali-quantitative analysis metrics can identify possible best practices, together with areas of excellence in the different countries where the different Hotel Companies are located.

The results achieved must reflect on some drivers of sustainable development in the tourism sector and in particular:

- the identification of the stakeholders to be involved and their classification on a scale of priorities, also because of the contribution they can make to corporate decision-making processes;
- the intensity of relations with stakeholders and the clarification of strategic and sustainability objectives;
- the choice of any priority actions to improve reporting and communication via corporate websites.

ORIGINALITY AND LIMITS OF WORK

The stakeholder engagement process is particularly important in CSR strategies. In the literature there are no analyzes of the SE processes in the hospitality sector; Hotels can make an important contribution in pursuing the objectives set by the Sdgs. The limits of the research concern the methodology, based on a reading of company documents and websites, with the additional criticality of subjective interpretation, mitigated by the use of a number of researchers equal to 2 (through replicability, the subjectivity of the document analysis). Further in-depth analysis may concern interviews conducted through questionnaires given to stakeholders and to the companies observed.

Keywords: Corporate social responsibility, stakeholder engagement, tourism industry, Gri report, digital communication, sustainability

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BUILDING INNOVATION CAPACITY IN MONTENEGRIN YOUTH

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ABSTRACT

The purpose of this paper is to examine the creative possibilities of building innovation capacity in Montenegrin youth. Promoting youth and creating the opportunities for them to contribute to all areas of development in Montenegro are challenging. Data were collected through a standardized interview (Yin, 2003) consisted of questions that were grouped into several components. The analysis shows that although in the areas of youth participation, significant progress has been made, youth innovation in Montenegro is still in its early phase of development and needs strong sustainable commitment, assuring the development and efficient functioning of various youth participation mechanisms at the local, regional and national level. It is also essential to continue to standardize and support youth work, youth information and non-formal education of young people. Surveys show that young people in Montenegro believe they have much to offer and can significantly contribute to all areas of the society's development. However, their potential remains greatly unused due to certain obstacles they face. There are needs for encouragement of the youth informing them about how to participate in all aspects of society.

Montenegro lies in southeast Europe on the central part of the Balkan Peninsula on the coast of the southern Adriatic Sea. Montenegro borders Croatia and Bosnia Herzegovina to the west, Serbia to the north, Albania to the east and Italy over the sea. Montenegro covers a territory of 13,812 square km with 300 km of seacoast border. The geographic position of the country provides favourable conditions for specific economic activities initiating innovative development. Young people need to be trained to be creative and be able to change their innovative thinking into business opportunity to combat the unemployment which is facing their generation. There are some examples such as UNICEF that has recently established a Youth innovation lab (UNICEF, 2017) and their representative in Montenegro said that the Youth innovation lab, called Kreaktivator, will provide space and opportunity for young people, particularly the most marginalized, to practice innovation and creativity and to collaborate on solving social and economic challenges and building entrepreneurial opportunities. He recalled that there are approximately 85000 adolescents in Montenegro who are disproportionately affected by the economic crisis (MET 2001, 2002). Youth unemployment rate stood at a high 38 per cent in 2015. The UNICEF innovation lab represents a collaborative incubation accelerator that connects young people with government institutions, universities, private sector,

NGO's and civil society to create sustainable solutions to the most pressing challenges facing youth (Chang et al., 2016). Literature on innovation (Bercovitz and Feldman 2006) and entrepreneurship have extensively noted (OECD 2017) that many countries have programs that target filling the funding gap particularly for young, small start-ups at seed and early stages. This study tries to understand whether innovation and entrepreneurship are preferred choice among young Montenegrin youth or whether they prefer and desire to become entrepreneurs due to the lack of other opportunities. Put differently, the research endeavoured to find out if young people are less or more innovative than adult and may become entrepreneurs with ease. This study of young innovators in Montenegro looks into several factors in business development by young people and highlights how in addition to the business environment, other factors namely positive community and family attitudes and innovative culture as well as skills and motivation of youth are critical for fostering productive youth entrepreneurship in the country. In addition, this investigation will enhance our understanding of the complex employment challenge facing Montenegrin youth and stimulate discussion on how to address this key development issue. Given the disadvantages youth face compared to their adult counterparts, they are on average likely to spend more time than the adults dealing with the complexities of commercialisation. They are also more easily discouraged. The range of barriers that youth need to overcome on their way to creative employment tends to be more extensive than for adult (Schoof, 2006). Montenegrin youth as everywhere in Europe face a major youth employment challenge, as evidenced by a high youth unemployment rate. At the same time, policymakers have been increasingly recognizing innovation and entrepreneurship as key drivers of economic development by fostering growth, technology adoption and innovation (Broekel et al., 2015) as well as poverty alleviation. The study highlights that young people are often not familiar with conditions they need to meet in order to initiate a new development. Although they are often driven by their desires to make a change or become more independent, they are not aware of all the supporting institutions and services available to them. A well-targeted training could help in this regard. Given the limited access to finance, the importance of reforms aiming at increased transparency and accountability, also in provision of financial services, cannot be overemphasized. Understanding the opportunities and constraints to youth entrepreneurship in different settings is thus critical for driving and successfully implementing this policy. In this research, youth initiative is defined to be 'resources and process whereby individuals utilize opportunities in the market through the creation of new business firms' (Naude, 2010). Entrepreneurship often promotes social identity of youth by giving them a stronger sense of community where they are valued as well as of 'meaning' and 'belonging' (White and Kenyon, 2000).

Keywords: Capacity, Youth, Innovation, Innovation Managment, Commercialisation, Montenegro, Economy, Market.

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PERCEIVED VALUE OF MOBILE BANKING APPLICATIONS USE

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ABSTRACT

STUDY OBJECTIVE AND BACKGROUND

M-banking is defined as the execution of financial and non-financial transactions using a mobile device, such as either a cell phone or tablet. Unlike m-banking, the m-wallet is an advanced m-application that includes several elements, such as m-payments, which contain information related to membership as well as loyalty cards, and the ability to store both personal and sensitive information, including passports, credit card information, PIN codes, and encrypted online shopping accounts.

Research to date has not adequately addressed mobile financial applications from the perspective of consumer behavior. Thus, this research develops and tests a series of hypotheses related to the antecedents of perceived value of m-banking application use and examined how it affects the development of customers' overall relationship with banks. Specifically, we test the 1) effects of personal innovativeness, self-congruence, perceived risk, and new product novelty on perceived value, modeled as utilitarian and hedonic value, and 2) the effects of utilitarian and hedonic value on customer relationship development, measured as overall satisfaction and commitment.

METHODOLOGY AND RESULTS

Established scales were used to measure the study constructs. Our hypotheses were tested using two samples (N=992; N=524) from different types of m-banking application experienced end-users in one of the leading countries in the digital banking, Finland. SmartPLS 3 was utilized in assessing the measurement and structural model. Reliability and validity of the model was acceptable. With respect to the models' predictive relevance and accuracy, the Stone-Geisser criterion (Q2) values were all above zero, indicating the models' predictive relevance. The R2 values for the outcome constructs were all close or higher to 0.40, indicating predictive accuracy of the model.

The results supported most of the hypotheses and revealed that self-congruence and new product novelty are the main drivers of perceived value of m-banking and m-wallet applications. In addition, the findings show that the perceived value of financial applications has strong positive effects on customers' overall satisfaction and commitment to their bank. Although we did not hypothesize the group differences, we also examined how the path coefficients differ between the two groups (m-

banking vs. m-wallet). By using the PLS-MGA method with 5,000 subsamples, we find statistically significant differences only in three cases.

DISCUSSION

The findings of this study contain two major theoretical contributions. First, we add to the literature of perceived value and its' antecedents by confirming that self-congruence and new product novelty are significant drivers of both utilitarian and hedonic value in the context of mobile financial services. Our findings further contribute to the literature on personal innovativeness by showing that in this study context, it has little effect on perceived value. With respect to perceived risk, we were able to confirm the negative effect on risk on perceived value in three out of four tested paths. Second, we have offered insights into how the perceived value of m-banking applications is positively related to the development of the bank-customer relationship. We linked perceived value with two robust relationship marketing constructs, namely overall satisfaction and commitment and found that utilitarian value predicts more overall satisfaction whereas hedonic value has a stronger effect on commitment.

The key managerial implication of this study is that banks' investments in developing m-banking and m-payment applications result in improved customer relationships and increased business.

The key limitations of this study are the cross-sectional nature of the study and convenience sample. There is also always the possibility that other factors influence the study outcome variables than the ones proposed. Although Finland is at the forefront of m-banking application usage, future studies should also test the research model and hypotheses in markets in which adoption is not as advanced.

Keywords: Mobile banking services, perceived value, personal innovativeness, self-congruence, perceived risk, new product novelty, satisfaction, commitment

DEVELOPING MULTI-CHANNEL CUSTOMER RELATIONSHIP MANAGEMENT STRATEGY FOR HOTEL OPERATION

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ABSTRACT

Travellers are becoming more price sensitive, less brand loyal and more sophisticated. Moreover, many hotels in touristic areas face high operating costs, costs of maintenance and renovation of their properties, decreasing tourism, competition, and a European economic slowdown. The use of a Customer Relationship Management (CRM) system, thus, becomes a strategic necessity for attracting and increasing guest patronage.

For our study, we developed a Multi-channel CRM Strategy for Hotel Operation using the “X” Hotel in Cyprus. The company is well positioned in the luxury segment, which is regarded as the fastest growing segment within the hotel industry. Among the elements that factor into its success are strategic location and strategic partnerships. The company has properties located in major destination areas for tourism, leisure, entertainment and businesses and has strategic partnerships with “Y” Hotel Ltd, which helps it with brand and asset expansion. The “X” Hotel Group has had experience in owning, managing and operating the hotels for last 25 years and the company and its management team have developed expertise in operating in the hospitality business, particularly in the hotel segment. However, there are some factors that could hinder further growth if not addressed. Among these is the company’s dependence on the value of its name, image and brand, high operating costs, and government policies, which increase compliance costs and liabilities of the company. Therefore, a Multi-channel CRM Strategy for Hotel Operation was constructed to mitigate these factors.

To construct an effective Multi-channel CRM Strategy for Hotel Operation, information from a project analysis on each hotel facility was needed. Information from the project analysis included 1) profiling the customer to decide which market segment should be targeted. Among the factors included were: demographic, guest status, type of guest, etc.; 2) an environmental analysis, i.e., a detailed listing of all the specific features and benefits physically contained within the property and its surroundings (hotel environment); 3) a competitor analysis, which takes into account profitable guest groups being served by competitors, the competitive benefits or advantages the business enjoys that cannot be matched by major competitors, weaknesses in the marketing strategies of the competition; 4) data mining and processing used to recognize significant patterns of data as they pertain to particular customers or customer groups; 5) target marketing, i.e., creating the resort’s market niche and then evaluating each

segment's attractiveness; 6) unique value proposition, as customers place increasing emphasis on the value of goods or services received; 7) creative marketing communications, which includes gathering data on its customers and then using this information to develop and target creative messages through various forms of media; 8) direct marketing channels through internal and external selling; 9) fulfilment and service based on understanding customer needs and expectations and delivering products and services to meet or exceed these needs and expectations; 10) measurement and assessment by which direct marketers can better design and launch more effective direct marketing programs and yield a higher Return on Investment (ROI); 11) adaption and innovation to produce greater creativity and, most important, the willingness and ability to change-on a daily basis.

It was found that to successfully implement CRM strategy, the following is needed: share the vision with staff and give staff more decision-making power, helping them to anticipate customer needs more quickly and accurately; train with rigor to ensure data integrity, as standardized input is essential and ongoing monitoring and training is important to ensure that data entry standards remain high; plan on all levels to foster buy-in by getting feedback from all parts of the organization on how they interact with guests and map out all guest touch-points and re-evaluate key processes in light of improving the guest experience; optimally use data to enhance return on investment (ROI), as knowing who the customers are can help pinpoint communications more accurately, improving the marketing ROI; and constantly measure and fine-tune strategies, tracing results consistently and using the information to facilitate better business decisions. Furthermore, to be effective a Multi-channel CRM strategy must encompass and integrate all customer-facing activities to ensure that no matter where, when or how a customer interacts with the company, the contact is personalized, consistent and demonstrates that the company knows and values the customer.

Our application of Multi-channel CRM was confined to one hotel in Cyprus. Broader research should focus on hotels in other tourist locations, taking into consideration their needs and expectations. Our research shows how the use of CRM can be a key competitive strategy to for attracting and increasing guest patronage in high touristic locations.

Keywords: market segment, environmental and competitor analysis, collected data, creative marketing, return on investment, multi-channel CRM Strategy.

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"INTEGRATED SUCCESSION MODEL" FOR THE EXTERNAL SUCCESSION PLANNING OF SMES AND FAMILY BUSINESSES FROM THE OWNER'S, STUDENT AND UNIVERSITY PERSPECTIVE.

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ABSTRACT

For some time now, the topic of corporate succession has been in the focus of public interest. According to the latest study by the "Institut für Mittelstandsforschung Bonn", there are 150,000 family businesses in Germany ready for transfer in the period from 2018 to 2022. Considering the 3.4 million family businesses, this is an enormous number of companies that will initiate the succession process (Kay et. al, 2018). Despite a high level of support for the external succession process by consulting firms, banks and online webpages such as Nexxt-Change, according to the latest study by the German Chamber of Commerce (Deutsche Industrie und Handelskammer, 2017), there are 2,947 former owners who cannot find a suitable successor and 2,077 potential buyers who cannot find a suitable company (DIHK, 2017).

The aim of this research is to investigate the motives, decision criteria and problem areas existing in the external succession process. The empirical research was guided by the following two research questions (i.e. based on Durst und Kaufmann, 2007; Nagl, 2015; Junker and Griebisch, 2017):

- To what extent can the search phase be facilitated by the newly developed initial conceptualization (integrated successor model, figure 1) and is the model valid in its entirety?
- Which motives, decision criteria and solutions to problem areas would have to be prioritized in the initial conceptualization model)?

The newly designed integrated successor model was mainly informed by Junker and Griebisch (2017) into account and was validated by an exploratory qualitative case study as the research method having applied Expert interviews based on a purposive sample. The transcribed interviews were analysed via content analysis (Mayring, 2016).

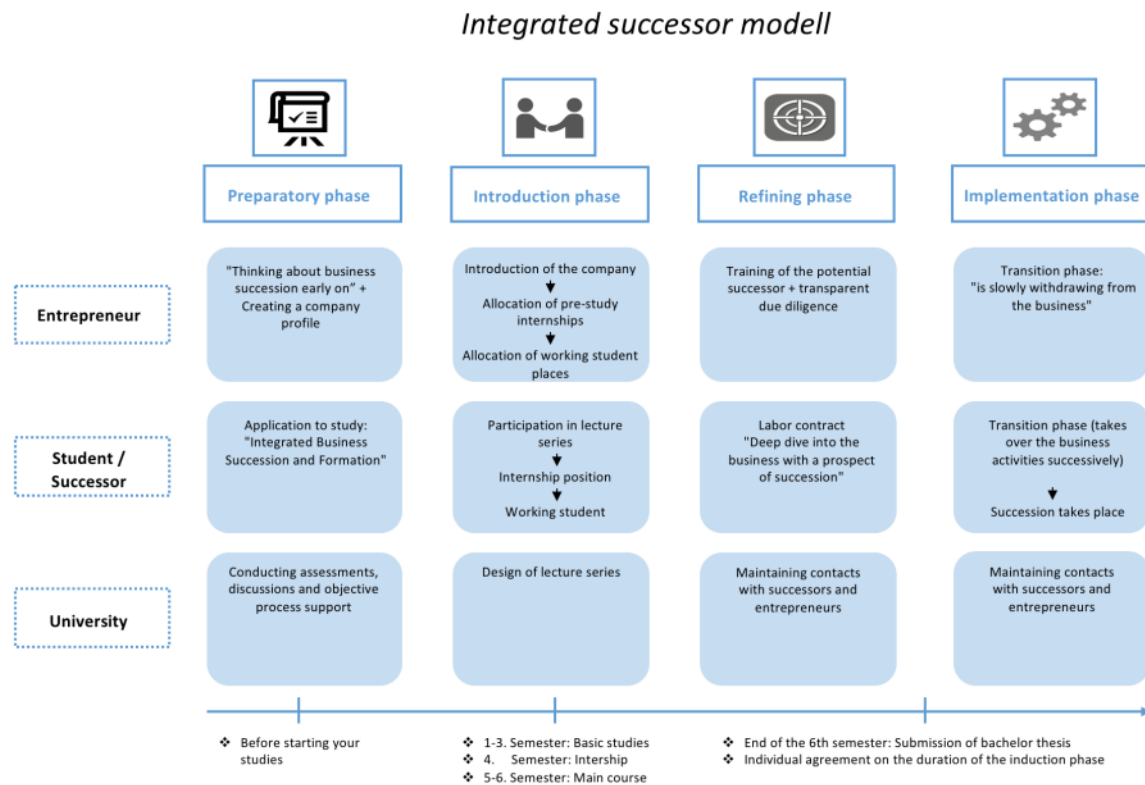


Figure 1: „Integrated successor model“ developed from Junker und Griebisch (2017)

Validating the model designed has aroused a high degree of interest on behalf of the experts. From the interviews the categories of financing, timely planning of company succession and the matchmaking process emerged as priorities to be analyzed and described in detail in an extended concept phase.

After this step and the resulting adjustments and improvements, the model can inform a qualified, personalized, sustainable and transparent external company succession process.

Keywords: external corporate succession, SME, family business, matchmaking program, Integrated succession model, enterprise value, Financing.

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A HYBRID TOOL FOR HYBRID PROJECTS: HOW CROWDFUNDING CAN SCALE THE IMPACT OF SOCIAL ENTREPRENEURSHIP

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ABSTRACT

Crowdfunding (CFD) is particularly relevant nowadays because it can support the growth of social oriented ventures and it can be seen as a hybrid financial tool. Its characteristics match with hybrid organizations aims, helping them in achieving the multiple purposes that they pursue. In fact, CFD combines the features of being at the same time a financial and a communication tool: it adds to financial support other benefits for social entrepreneurship as for example the attraction of media attention, the collection of market information and the opportunity to test social ideas and products to a large scale of potential beneficiaries. Therefore, CFD investors' decisions are guided by both economic output and social value commitment.

Academic research has demonstrated that there is a strict connection between CFD and social entrepreneurship as social dimension of the project is a signal of additional legitimacy for the crowd and can influence the campaign success. Reaching the CFD campaigns goals, social entrepreneur can promote both the economic and social sustainability of the initiative and foster dissemination to its actual and potential stakeholders. Even if the social orientation of the venture influences CFD success, less is known about the role of CFD in scaling social impact of the project through the campaign. In fact, scaling social impact is fundamental to the process of solving social problems through entrepreneurial activities. Studies on this topic individuate three different strategies used by social organization to scale their social impact: branching, affiliation, and dissemination. In particular, the dissemination one, that consists in increasing impact without expanding the organization size and revealing which elements of the project are relevant for the impact thriving, fits with CFD campaign aims.

In this realm, the aim of this study is to investigate the role of CFD – as a hybrid financing tool, in scaling social impact through the campaign dissemination. In the case of CFD, the competencies attributed to social entrepreneur to promote social change - organizing, communicating and evaluating - are extended to the campaign tasks. On this vein, information about social projects published on three worldwide operating CFD platforms (Indiegogo, Chuffed.org and Startsomegood) are collected and subdivided in the three areas where scaling can be promoted. In particular, variables related to the organizing task is detected in the presence of a structured group or institutional supporters in the campaign, for promoting further the CFD project; concerning the communication purposes CFD variables can refer to the online entrepreneur's relational power, campaign updates and comments;

finally variables for evaluating CFD progress are those related to accountability of organizations instruments (as the presence of inputs, activities, social impact description, financial projections and business plan). The dependent variable - the scaling power of CFD social campaigns - is measured by the number of supporters (backers) involved through their economic (financing amount) and social (campaign shares in the web context) commitment to the project.

From a practical perspective, the results contribute in the individuation of hybrid frameworks and tools for scaling social impact of social entrepreneurs engaged in CFD campaigns. From a theoretical perspective, the study advances the hybridization concepts matching the ones concerning organization design and the financing tool. Furthermore, these hybridization features are determinant for the scalability of the multi-purposes projects addressing social problems.

Keywords: Social Entrepreneurship, Crowdfunding, Hybrid Organization, Social Impact, Social Innovation, Entrepreneurial Finance.

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THE IMPACT OF ETHICAL VALUES AND MOTIVATION ON JOB SATISFACTION: EVIDENCE FROM GREECE

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ABSTRACT

The purpose of this research is to accelerate the understanding of the relations between employees' motivation, satisfaction and corporate ethical values. A quantitative approach was utilized and a total of 189 usable questionnaires were collected from a private organization. The results indicate that job satisfaction is significantly explained ($R^2=0.710$, $\text{sig}<0.000$) by fair wages and creative work as well as by the corporate ethical values of the organization. Intrinsic and extrinsic motivators had a positive impact on job satisfaction, while corporate ethical values were the most significant variable in the equation.

INTRODUCTION

Contemporary firms need to manage their workforce efficiently in order to assure that their human capital reaches his maximum potential. The consideration over workforce's motivation and subsequent satisfaction is one of the main topics in management research (Manolopoulos, 2007). Management studies affirm that individuals are the most significant organizational asset and a pivotal factor leading to higher performance. Hence, appears that nowadays, the main task for managers is to achieve company's goals for efficiency and productiveness while satisfying the workforce's requirements for motivation. Corporate ethical values have been extensively indicated to be a main part of a corporation's culture and have been acknowledged as influential forces diversifying one company from another. Contemporary research proposes that the exceptional values shared by firm's employees are regarded to be a compound of the individual's motivation and satisfaction with the firm (Valentine et al., 2011). The purpose of this research is to expand our understanding about the factors influencing employees' motivation and satisfaction, as well as the link between motivation, satisfaction and corporate ethical values.

THEORETICAL BACKGROUND

Motivation is a prominent and extensively researched area in the management literature. A plurality of studies has dedicated considerable effort to establish a main motivation theory, attempting to integrate an assortment of features to the notion. In the context of human resource management and

organizational behavior, motivation is categorized as either intrinsic or extrinsic (Manolopoulos, 2007). Extrinsic motivation develops when workforce's requirements are mainly indirectly satisfied, principally through financial remuneration, while on the other hand intrinsic motivation pertains to performing a task for satisfying inherent psychological requirements rather than for materialistic purposes (Manolopoulos, 2007). Individual workers can be extrinsically and intrinsically motivated by factors fulfilling their anticipations concerning accomplishment, compensation and satisfaction.

The notion of job satisfaction is grounded on organization theory with a plurality of studies examining job satisfaction in various contexts. Herzberg's two-factor theory is one prominent theory in exploring extrinsic and intrinsic factors influencing job satisfaction and dissatisfaction. The most significant extrinsic factors are wages, firm policies, work security, relationships with others and physical work environment. On the other hand, intrinsic factors are work-related characteristics such as achievement, recognition, work itself, responsibility and others which lead to workforce satisfaction.

Ethical values, being a crucial aspect of organization culture, have been contemplated to be greatly influential in guiding the comportment of employees, helping inaugurate and support the norms that outline the "right" conduct as well as the things "worth doing" (Hunt, Wood, & Chonko, 1989). Successively, such ethical norms can induce employees' decisions and induce behaviors that are seductive to corporations (Hunt, Wood, & Chonko, 1989). Previous studies support that ethical values have great significance in various organizational settings. Nevertheless, there is a scarcity of research investigating ethical values as a motivating force related to employee's satisfaction.

METHODOLOGY, RESEARCH DESIGN AND DATA ANALYSIS

A quantitative approach was utilized in order to examine the impact of motivational attributes as well as corporate ethical values on job satisfaction. A total of 189 usable questionnaires were collected from a private insurance company with 220 employees, located in Greece. Job satisfaction was measured using the short form of Minnesota Satisfaction Questionnaire (Gunlu et al., 2010). Motivational attributes followed Manolopoulos (2007) study and Corporate Ethical Values were measured by Hunt's et al. (1989) scale, which is the most widely used psychological instrument for measuring the perception of business ethics. All questions of the key variables were measured on a five point Likert scale and data were analyzed with SPSS software.

RESULTS, DISCUSSION AND IMPLICATIONS/CONCLUSIONS

The majority of the respondents were male (56.1%) and their mean age was 39.49 years old. The average respondent was 11.09 years in the organization and 7.82 years in his position. Almost half of them (45.0%) held a bachelor degree and the majority of the participants earned more than 1,000€

monthly (69.8%). Creative work and self-esteem demonstrated the higher mean score of all motivators; 4.21 and 4.19 respectively. Results indicated that the employees were satisfied from their job with the mean score of overall satisfaction to be 3.98. Moreover, ethical values appeared to be highly evaluated by the employees as they averaged 4.19 on a five point Likert scale. Correlation analysis revealed that job satisfaction was significantly correlated (bivariately) with all the motivational factors as well as with the corporate ethical values. Nevertheless, when analyzed together, multiple linear regression showed that only fair wages, creative work and ethical values had a significant effect on the job satisfaction. The predictive power of the proposed model was notable ($R^2=0.710$, $\text{sig}<0.000$). Intrinsic and extrinsic motivators had a positive impact on job satisfaction, while corporate ethical values were the most significant variable in the equation. The above results emphasize the role of ethics, creative work and fair wages in organizations, calling for the managers' attention in policies adoption. However, since the study has been conducted on a single organization, consciousness should be raised as far as the generalizability of the results presenting insights for further research.

Keywords: motivation, satisfaction, ethical values

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THE USE OF IMC AND SOCIAL MEDIA BY MUSEUMS DURING THE ECONOMIC CRISIS IN GREECE: A CASE STUDY OF MUSEUMS

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ABSTRACT

In the last decade we have witnessed the emergence and growth of social media which has revolutionized the way individuals and organisations share information and communicate in a rapidly changing environment. During this time, Greece has been confronted with an economic crisis which has completely reformed the local financial, political, business and social environments. The paper attempts to explore the current practice adopted by Greek museums (private and governmental) regarding their marketing communications activity by using both empirical and secondary data. The study was qualitative in nature and incorporated multiple case studies. Eight semi-structured interviews were carried out with eight representatives from two public and two private, Greek museums. This study attempted to shed light onto whether there is a relationship between the current economic crisis and the use of social media as a promotional strategy by these organizations.

Keywords: Social Media, Integrated Marketing Communication, economic crisis, Greek museums, qualitative research, case study methodology.

FREE CASH FLOWS MODEL IN DAIRY INDUSTRY IN GREECE: THE CASE OF A FIRM “KRI KRI”

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ABSTRACT

The purpose of this paper is to evaluate the value of an entity based on the ability to generate positive cash flows and then examine whether it positively affects the market value of that share over its book value.

It is known that there are many methods to evaluate an entity. Valuation plays a central role for many analysts to determine the price of an asset or the value of an enterprise. The industry in which the business is active is an important factor in its assessment. The company's years of operation, its size and its economic characteristics are crucial to making a decision. An important role in the evaluation is also the team of experts that undertakes this task. The experienced analysts often use those necessary elements, based on their experience by avoiding the use of elements that may mislead him. Risk measurement is also a key factor influencing business evaluation. All investments involve a risk depending on the type of investment. It is important to state that investors are cautioned that any past performance does not ensure future returns. As long as the standard deviation of expected returns is greater, so the risk for the investor does not have the expected returns

Taking advantage that is more crucial for companies to create futures positive cash flow, the method of “Discount Free Cash Flow Model” is preferred among others. In other words, that is what an investor will buy is the future cash flows of the unit.

That method examines first, the ability of enterprises to create futures cash flow. And if they do so the method relates the value to the present value discounts them with the WACC (Weight Average Capital Cost). The proposed method applied to an enterprise (“KRI KRI”) operating in Greek milk (i.e. dairy) industry.

The company has invested in new technology, making it very competitive. However, it is active in an environment that has changed many times in recent years, and there is instability in the area. It is therefore perceived that the valuation process is a difficult task.

There is a basic statement among investors “Nobody pays more for an asset than its worth”. Cash Flow Analysis as well as the Free Cash Flow Model shows very clearly the way that the management of those enterprises affect to the results as well as to create Free Cash Flows.

The company's ability to generate additional cash flows, its investment operations in new technologies and the business environment in which it operates are factors that played a major role in increasing its market price compared to the company's accounting/book value.

Keywords: Dairy business evaluation, Free Cash Flow Model, financial management.

ENGAGING RETAILING STAKEHOLDERS TO CORPORATE SOCIAL RESPONSIBILITY PRACTICES THROUGH SOCIAL MEDIA

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ABSTRACT

The current case study explores whether or not organizations that engage stakeholders in social media with co-creative approaches (allowing them to be active participants and decision-makers in their online CSR activities) can be more effective in building awareness, increasing stakeholders' empowerment and participation levels, than those who use the conventional design and communication of these activities, where the stakeholder has no participation in the process and is merely taken as a passive agent. Thus, a real online participatory CSR initiative is examined, and an online questionnaire is also conducted, which gathered 322 valid responses. Results point out that co-creating socially responsible activities in social media can indeed increase the awareness for such actions and also empowerment, participation levels, positive word-of-mouth and strengthen ties with stakeholders in the process.

INTRODUCTION

Traditionally, the main approaches for communicating corporate social responsibility (CSR) activities have been the dedicated sections in corporate websites and annual reports. Despite aiming to illustrate the increasingly importance that firms are giving to such activities, there are already some doubts about the effectiveness of these communication channels as the awareness levels of CSR initiatives has revealed to be fairly low (Chaudhri, 2016; Sen et al., 2006).

Although some recent studies focused in building consumer-brand relationships through digitally co-created social responsibility (e.g., Kull and Heath, 2016), there is still little research regarding how these activities affect awareness and engagement in social media environments and how a brand should design and communicate them in such channels to achieve the best results. Thus, the main objective of the current case study is to explore whether or not organizations that engage stakeholders in social media with co-creative approaches (allowing them to be active participants and decision-makers in their online CSR activities) can be more effective in building awareness, increasing stakeholders' empowerment and participation levels, than those who use the conventional design and

communication of these activities, where the stakeholder has no participation in the process and is merely taken as a passive agent.

METHODOLOGY

Based on past research and in order to achieve the objective of the current study, we use a questionnaire composed of 28 questions, separated into three sections. The first section contains 14 questions that measured social networking usage, current CSR awareness levels, general use of the traditional CSR communication channels, current level of control felt by respondents towards CSR activities, the empowerment felt after companies adding cause choice freedom and respondents' attitudes towards the effectiveness and outcomes of participatory CSR initiatives. The second section of the questionnaire consists in 10 questions regarding a real CSR initiative, implemented by one of the biggest Portuguese retailers - Continente. After a brief contextualization, the questions measured activity recall rate, participation rate, reasons to (or not to) participate, Word-of-mouth dissemination rate (or propensity), perception of brand image after the initiative and attitudes towards online co-created CSR initiatives (acceptance levels). According to Bradley (2013), the problem of knowledge and recall is a complex one and the process by which information is remembered has implications for researchers. We use stimulus to assist respondents through an image placed in the second section of the questionnaire to facilitate recall, as the action presented there had already taken place 1 year ago at the time the questionnaire was launched. Due to the use of filters, this section had also different question routes for each participant, based in its answers. The third section contained 4 questions regarding socio-demographic variables. The launch of the questionnaire comprises two stages: for the first stage, it is prepared a pre-test of the questionnaire, which was the pillar for the second and main stage: the online questionnaire. During the pre-test stage, a total of 10 people are selected to be monitored while responding to the first draft of the questionnaire. This stage provided important insights about each one of the questions previously elaborated, allowing for reviewing and refining them, as well as adding more questions that revealed to be relevant for the study. To equally approach the international market, the scalability of the online questionnaires is taken into account and two versions are created for the purpose: one in Portuguese and one in English. As for the second stage, the online questionnaire was launched in social networks - Facebook, Instagram and LinkedIn - and in an international forum - Reddit, during three months.

MAIN CONCLUSIONS AND IMPLICATIONS

According to our findings, the traditional approach of communicating CSR activities in corporate websites and annual reports is not enough to assure one of the key challenges for the CSR activities

success: generating awareness. Thus, as the social media phenomenon continues to expand along with consumers' and other stakeholders' growing expectations in socially responsible organizations, it is urgent that brands progressively rethink their CSR initiatives and start communicating them in new channels, so that they can reap the full benefits of such activities.

Secondly, individuals feel very low control regarding the process and the outcomes of CSR initiatives, and that by providing interactivity experiences and adding freedom of cause choice, organizations can increase stakeholders' empowerment levels, consequently enhancing participation, one of the dimensions of consumer engagement. This research also managed to shed some light on Kull and Heath (2016) claim regarding the need for further empirical research addressing the need to examine if their findings regarding CSR with choice were generalizable to other forms of corporate philanthropy that were not tied to a product purchase or other consumer generated, revenue-providing transactions. The analysis of a real CSR event allowed to corroborate that co-creating socially responsible activities in social media can indeed increase not only the awareness for such actions, but also increase the chances of higher participation levels and WoM dissemination and reinforce consumer-brand ties in the process.

Brand managers need to go beyond the traditional approach of posting updates on their websites, launching press releases or using annual reports to communicate social responsibility, which are compromising the results for crucial branding outcomes. For example, they can embrace the latest innovations, such as uploading photos, videos, games or mobile applications that actually enable interactivity and engage stakeholders.

Lastly, for future research we also recommend include an engagement scale that allow the study of the other dimensions of stakeholders' engagement. In this study we only consider the behavioural component of the conceptualization of engagement.

Keywords: stakeholder engagement, corporate social responsibility, co-creation, social media, retailing sector

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THE CYPRUS INDUSTRY AGAINST PORTER'S 'FIVE FORCES ANALYSIS' IN THE MIDDLE OF THE FINANCIAL CRISIS

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ABSTRACT

The aim of this paper is to apply Porter's five forces to the Cyprus hotel industry, when the world financial crisis hit Cyprus and affected the Cyprus banking sector. Porter's five forces will be analysed in detail to the hospitality industry of Cyprus. Furthermore, this paper will show which are the most important forces for the hospitality industry of Cyprus through a research analysis. The Cyprus hotel industry is divided into small and medium size companies which are privately held, and there is no market leader. It is characterized as an industry with many competitors, which generally are in a weak bargaining position against its suppliers and buyers. In this environment, the strategic positioning of these companies is critical (Porter, 2014). Moreover, this paper will also evaluate the outside in approach to the strategy formulation of the referred industry. Porter suggests that strategy takes place at the highest level of an organization, where decisions are made about where to compete and how to compete (Strategy Business Information and Analysis 2012). Strategically all industries and all companies aim to maximize profits, whilst on the other hand competition eliminates them. Hotel companies in Cyprus, due to these intense competitive forces, are limited to relatively low returns. Lastly, other important competition theories will also be engaged during this analysis. The firms' unique differences, allow them to sustain a competitive advantage. It could be their technical know-how, reputation, or brand awareness. It could be also the ability of managers to work together (Barney, 1986).

THE CYPRUS HOTEL INDUSTRY

By the end of 2011 in Cyprus island were running 824 licensed properties as follows:

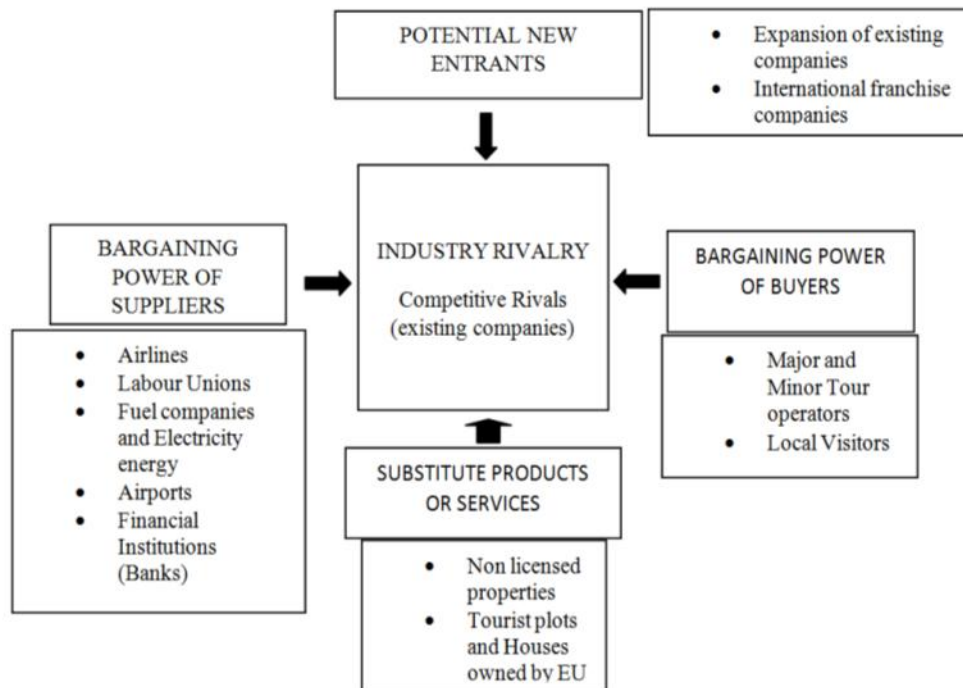
Hotels of 1* to 5*: 223, organized hotel apartments De Luxe of A, B and C category: 180,

Tourist villages: 21, Tourist villas and plots: 131, hotels without classification: 5, tourist apartments: 95, cultural buildings: 154, camping sides: 3.

The total number of beds by the end of 2011 were 87,082. Furthermore, by the end of 2011, 35,900 people were employed by that industry. That's about the 10% of the working population. Tourism revenues for 2011 were 1 billion, 7 hundred million euros which was the 9.8% of the Cyprus gross domestic product (G.D.P.). Bearing in mind the figure above, somebody can understand how important was the contribution of that industry to the island's G.D.P., especially when world financial

crisis hit Cyprus. In addition, the Cyprus hotel industry had accommodated in 2011, 2.4 million of people coming from almost 29 different countries. It is important to mention that there was an increase of 10.1% on arrivals compared to 2010 and 11.7% increase on the arrivals compared to 2009. Annual report, (2012), Cyprus hotel association. Cyprus hotel industry is a fragmented Industry since no firm has a significant share and can strongly influence the industry outcome.

Porter's Competitive Model - Cyprus Hotel Industry



PORTER'S FIVE FORCES ANALYSIS

According to Porter's five forces analysis, 'it draws upon industrial organisation (IO) economics to derive five forces that determine the competitive intensity and therefore attractiveness of a market. Thus attractiveness refers to the overall industry profitability. (En.wikipedia.org, 1979). Furthermore, the overall industry attractiveness does not mean that every firm in the industry will return the same profitability. Firms competing within the same industry are able to implement their own business methods in order to achieve a profit above the industry average. Porter's five forces analysis are already introduced and will be further analysed. That analysis is just one part of his strategic model. The other elements are the value chain and the generic strategies. Important to mention is that, he developed his five forces via the popular SWOT analysis. (Strengths, Weaknesses, Opportunities and Threats). The Cyprus hotel industry is positioned as a relatively attractive segment, because entry barriers are high due to the high amount of capital required to build up a hotel and the extended research and development (R&D) required in order to enter that industry. On the

other hand, exit barriers are quite low, even though some properties were converted to offices and apartments.

Keywords: Porter, Cyprus crisis, suppliers, buyers, rivalry

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NEOPHOBIA, COUNTRY IMAGE AND FOOD CONSUMPTION. A PRELIMINARY STUDY

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ABSTRACT

This study presents results of a preliminary analysis aimed at testing the effects of country image on food purchasing intentions in the case of kiwifruit, often considered by consumers as a kind of “exotic” fruit denoted by a strong identity in terms of country of origin and food neophobia. There is wide evidence on the role of country image as a driving force of consumer intentions and actual behavior (e.g., Min Han, 1990); however, few evidence has been provided so far regarding food consumption (Henriques et al., 2009).

Food neophobia is the fear of new foods. Neophobia has been studied within food consumption studies, as it has been considered as a determinant component of food consumption, and, particularly, of specific kinds of food, like fruit and vegetables (Dovey et al., 2008). Food consumption is both subject to internal (e.g., personality traits) and external factors (e.g., cultural familiarity). Recent evidence suggests that interrelations between these factors might influence food consumption (Jang and Kim, 2015).

The analysis presented in this work was aimed at checking for the robustness of the latent analytic constructs (namely, country image, product country image and neophobia) to further test for the structural relationships among the constructs and the potential, mediating role of food neophobia.

Primary data were collected by means of a questionnaire administered to 900 (840 were usable responses) supermarket consumers in Northern Italy; questionnaire structure was entirely based on already existing research instruments.

Data analysis was carried out using Confirmatory Factor Analysis (CFA) to test the measurement scales, that is, the relationships between observed measures or indicators (e.g., behavioral observation ratings) and latent variables or factors. The goal of latent variable measurement scale is to establish the number and nature of factors that account for the variation and covariation among a set of indicators. The reliability of each construct was positively analyzed by the Cronbach's α coefficients, which indicate an acceptable level of internal consistency in the measurement items (Nunnally and Bernstein, 1994). In addition, the Average Variance Extracted (AVE) for each construct suggests convergent validity (Hair et al., 2010). The results indicate that the latent constructs are generally well described by the measurement scales, and that this should be considered as a starting point of the first step in proposing a structural equation model to test the relationships among constructs.

At this stage, the present study has intrinsic limitations, as it only provides preliminary insights on robustness of the single dimensions of an analytic framework addressing the impact of food neophobia and country image on food consumption. Potential, future developments of this research may provide useful insights for food marketers, for instance, in terms of devising marketing, communication and positioning strategies more effectively.

Keywords: neophobia; food consumption; country image; fruit.

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MULTICHANNEL INTEGRATION AND CONSUMER BEHAVIOR IN A DIGITAL AGE: THE ROLE OF PHYSICAL DISTANCE

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ABSTRACT

The digital context is the ground on which many businesses currently clash. In fact, not only the large multinationals, but also small businesses can access domestic and international markets at low costs and without significant investments. E-commerce and the recent innovations brought by technology have changed the way of doing business.

The number of consumers who buy online has increased compared to previous years (overall in the B2C, online sales of products and services amounted in value to 1,671 billion dollars in 2015, over 350 billion more than in 2014), but still shows the existence of uncertainties related to different factors: perceived risk for privacy, for product characteristics, for physical distances, for reviews on the Internet. It is for this reason that never before in the digital environment two factors of great importance are the physical distance of the online seller and the presence of a physical store in addition to the online channel.

The objective of this work is to understand how the uncertainties and risks of the transaction linked to the virtuality of the online channel and the physical distance between buyer and seller can influence the final consumer purchase. Mainly we want to consider the physical distance dimension between business and consumer and we want to evaluate if the presence of an offline channel in addition to a mere virtual presence is sufficient in favoring the transaction.

LITERATURE REVIEW

Different researches have analysed the impact of innovations on firms and consumers. Automation, cloud computing and online technologies have affected the way businesses produce and sell. Such innovations have also affected consumers' purchase intentions and behaviours.

In the online context, trust and vendor reputation are two valuable variables, as consumers can not physically examine the product or have a direct personal relation with the vendor. Kimery and McCord (2002) define trust as the willingness of the consumer to accept the weakness in an online transaction based on positive expectations regarding the future behavior of the online business. Hong and Cha

(2013) in their study identify how trust is a relevant aspect in the context of online purchase as the consumer has no direct experience of the seller and can not see and test the product.

Many consumers who buy online, also buy on other channels of the same company. Some research shows that while consumers have a range of stores among which they choose, they tend to have a single store to which they are particularly loyal (Uncles and Kwok, 2009). The online presence can therefore be seen as an extension of physical presence and therefore constitutes an increase in the phenomenon of cross-shopping. Furthermore, the greater the connection between a retailer's physical and online stores, the greater the likelihood that the characteristics of the two channels, such as integrity and reliability extend to the other channel and lead to greater consumer confidence (Kwon and Lennon, 2009). Consumer confidence also increases as his experience in online shopping increases. According to Belk (1975), situational variables can influence purchase decisions through consumers' perceptions of the different channels used and through compatibility with consumer purchasing styles. Among these variables, the literature identifies in particular the physical distance and the variables related to time (Gehrt and Yan 2004, Huang and Oppewal 2006, Verhoef and Langerak 2001). According to Gustavsson (2006), the physical distance between buyer and seller is a strong deterrent in online purchases. Blum & Goldfarb (2006) show that consumers rather visit shopping websites from countries that are physically close than from countries that are far away.

PROPOSITION MODEL

Based on the elements mentioned above, we propose an integrative model (Fig.1) with the related research propositions.

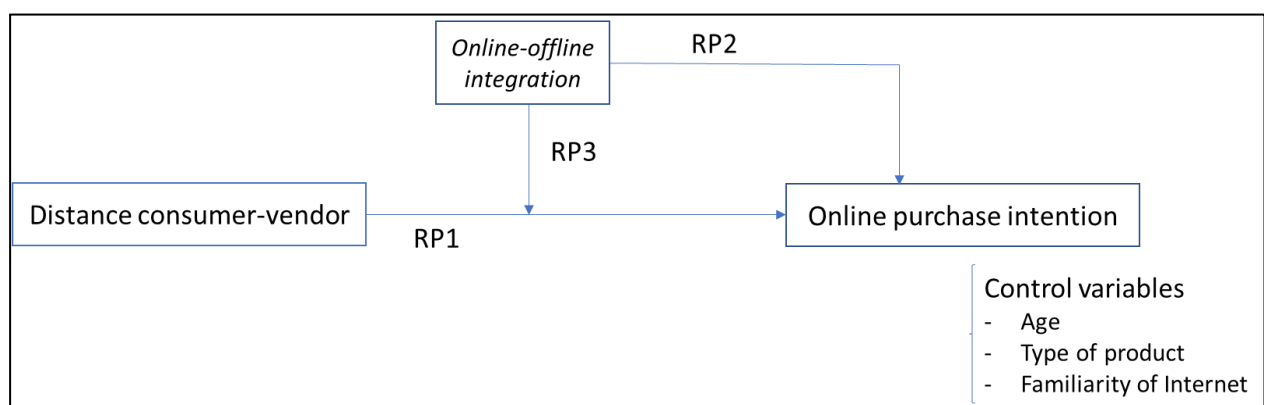


Fig. 1 Research model

RP1: The trust due to the presence of an offline channel in addition to the virtual one has a positive effect on the consumer online purchase intention;

RP2: The presence of a higher physical distance between seller and buyer reduces the consumer online purchase intention;

RP3: The presence of a physical store in addition to the virtual one modifies the effect of the physical distance between seller and buyer on the propensity to purchase the consumer, inducing the latter to purchase, and vice versa.

CONCLUSION

The research aims to highlight the importance of two variables in online commerce: physical distance and the presence of an integration between virtual and physical channels. These variables are often overlooked both by academic studies and by companies that internationalize with e-commerce. However, the evidence of these elements can suggest important companies' tips. Through these analysis of actual studies, it can be suggested to online businesses that internationalize abroad to further publicize its online store if it has no possibility of setting up a subsidiary abroad, or to adopt the format of the flagship store to increase its awareness, particularly when the distance consumer-vendor is high.

Keywords: digital innovation, multichannel strategies, e-commerce, consumer purchase intentions, physical distance.

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TRUSTING BRANDS, TRUSTING PEOPLE

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ABSTRACT

Much of the relational marketing literature stems from Fournier's 1998 seminal article outlining the shape and structure to the relationship that people form with brands. While there has been considerable research on the different components and dimensions of this relationship, the trust that consumers feel towards brands remains under-examined.

The purpose of this paper is to examine the relationship between the trust that may exist between individuals (person-to-person trust or micro-level trust) and to compare this trust to brand trust (meso-level trust). Although both forms of trust have several elements in common such as notions of risk, vulnerability and commitment, it is difficult to argue that interdependence or interaction, for example, can be the same in the two cases. Problems also arise from different definitions of the concept of trust itself (Gurvies and Korchia, 2003).

This theoretical paper examines how trusting in the two cases may be similar or are in fact so different that researchers and practitioners must be wary when using the term trust because they may be referring to two very different concepts. The paper concludes with a discussion on the on the strength and persistence of anthropomorphic brands and how these brands may find themselves at the nexus of the two types of trust.

Keywords: trust, brands, relationship, anthropomorphic

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VALUE INVESTING APPROACHES: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Value investing (VI) is an approach to fully risk capital allocation attributed to Graham and Dodd in 1934. Over the years, Value Investing has been referred corporate finance studies and the stock market recent literature (e.g. Chee, 2013; Calandro 2014; Duong 2014; Asness 2015; Chen, 2017).

Regarding the past and focusing on the literature, we have found different main approaches to value investing: (1) Graham and Dodd (1934); (2) Fisher (1958); (3) Fama and French (1992); (4) Lakonishok et al. (1994) and (5) Damodaran (2012). Four out of five of these approaches have been developed in various periods and different economic-financial contexts and many contributions are written about Value Investing. Despite this attention, it is necessary to understand if the different approaches to VI are still working in the post-financial crisis years.

Therefore, this paper aims to provide a Systematic Literature Review (SRL) about Value Investing in the current scenario, in order to better highlight the position of different Authors in relation to the main approaches of study previously introduced. A Systematic Literature Review was used, because this method allowed the sample of publications to be examined in a systematic way (e.g. Petticrew, 2001; Tranfield et al., 2003; Pittaway et al., 2004). The use of the SLR method is helpful in order to improve the knowledge of the topics analysed in the academic field, in particular to locate, appraise and synthesize the most recent contribution on VI. Through a systematic review of the literature from 2007 to 2017 (namely the years post financial crises), 45 paper were identified and analyzed, through the Ebsco Host database, to give us a better understanding of the approaches and methodologies adopted in the past studies.

This search highlights 24 out of 45 papers that, directly or indirectly, have used one the main approach od study, identified in the previously literature in the last ten years (2007-2017). In particular, the results that came out is that:

- 10 out of 24 follow the Graham's approach;
- 10 out of 24 follow the Lakonishok and Fama-French' approaches; and
- 4 out of 24 do not follow, directly or indirectly, one of the main approaches identified.

Furthermore, referring to the methodologies, ten papers use an empirical quantitative method, nine use an empirical qualitative method (case study/multiple case study) and five use a desk qualitative method.

Analyzing the paper, the main gap that we have highlighted in our study is that none of the various Authors analyzed, take into consideration the “Economic moat”. This last element can be defined as a firm’s competitive advantage derived as a result of various business strategies/elements (cost advantages, switching costs, efficient scale, intangible assets and network effects) that allow companies to earn above-average profits for a sustainable period. Companies that have strong “Economic moat” tend to show solid financial performance and rising returns on capital over time (e.g. Ferrari, 2015).

To our knowledge, this is the first study on Value investing that systematically reviews the literature. The literature is arranged in such a way as to provide a contribution on what has been written in the last ten years on the topic, where it has been applied and the possible future lines of research.

Keywords: Value Investing, Corporate Finance, “Economic Moat”, Systematic Literature Review.

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THE HEALTH TECHNOLOGY ASSESSMENT - AN INNOVATIVE TOOL TO FORTIFY THE ACCESS TO THE HEALTH SYSTEM

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ABSTRACT

Today's healthcare principles need to be improved with more managerial efficiency beside the direct application of innovative treatments in order to respond better to the needs of the patients. The costs of new treatments are constantly increasing and the resources in healthcare have always being very scarce compared with other industries.

INTRODUCTION

Health is a universal right, but Universal Health Coverage is not a reality for all countries independently of their GDP, although it remains the goal that every nation has to keep focus on in order to make it a reality for its citizens.

WAYS TO USE THE NEW TOOLS FOR THE INTEGRATIVE SATISFACTION AND HEALTH MANAGEMENT BENEFIT

One of the mechanisms proposed to improve access to healthcare is a periodically assessment of new and costly healthcare technologies to make sure that the benefits brought overcome the risks associated, with the aim that national health systems optimize the treatments schemes and offer them to the groups of patients who are needing them the most and who would mostly benefit from them. Annual medical costs increase periodically. Hence, the comparisons of treatments versus the standard therapeutically practice, cost-effectiveness, quality-adjusted life years, will be some of the methods applied by governments besides the optimization of their legal framework and the harmonization of their competitiveness polices between for example, the European Members States. This sends the links toward the non discriminatory access to medical act and scientific information, the highly educated specialists, innovative adequate medication, revolutionary medical devices and equipments and improved services' delivery.

As the care services consume large amounts from public and private sources, rules, monitoring and assessment for transparent and wise spending become more than necessary, for patients and entities' benefit. So the quality of the managerial activities increases in importance while the structural aspects of the health services sustain the skills and the strategies' redesign.

To a greater extent, factors are identified as influencing decisions: integrated cost benefit analyses, need for remediation templates issuing, examination of possible choice based on different choices and scenarios' architecture.

The responsiveness of a health system and the patient's preferences undergo as important parts of the governing interests. Now, the doctors' engagement is centered on a complex approach of the patients' health and related to value and importance. It is now noticed that their high professional-moral value denoting responsibility in saving lives doesn't account when material resources are missing, when patients' number and their diseases' severity exceeds resources, when they are hold back to access innovative treatments. Because of lack of medical education, prevention and of watery knowledge in understanding behaviors and treatments' fundamentals the big picture is often lost and the patients are not treated holistically, but as isolated parts belonging to different medical specialties.

It is pointed out that the quality of health services is influenced and sustained by creative innovation application from health research, the administration's management.

The strategies of the big corporate in Pharmacology and biotechnology emphasize permanent pipelines of reverse revenues to cover the investments made in drug research and development. The ferocious competition looks their common interests and partnerships are invariably applicable and potent. This approach is melding with the development of Merchant Medicine, a new and a very dynamic player on the medical market, tracking the growth of retail medical care services.

To promote the good goals of the medical and healthcare activity, important rigors are appealed to be considered: a) strategic purchasing directed on quality and financial parameters, b) health technology assessment in setting priorities, c) monitored transparency in taking decisions, d) transparency and rationale in investments, e) price reductions for Pharma produces closely linked to proof regarding the relation cost/effectiveness, f) rational use of dispensing, g) wise step-down of all disbursements (administrative, medical, nonmedical).

Under the technology and science hold, new activities, professions and decision-making processes design the socio-economic boundary, based on newfangled principles of management, acting out in the beneficial interest of the people; not harming humans; inducing autonomous decisions in full freedom and knowledge relating to the ecosystems interactions and contributing to an equitable distribution of the benefits associated with the accessibility of intelligent home's assistance delivering also healthcare.

There are plenty of situations when the patients confront the discontinuity in treatments and therapies, given the errors in therapy protocols, health management coverage assessments and supplementary reviews. To avoid negative outcomes of such situations is necessary the direct access

of prescribing/ordering providers, at upper, associative level, for the same treatment management program.

The health reform suffers damages if: the cost for a medical visit increases, less people are covered by the public insurance, the coverage value and conditions are reduced, the waiting time for essential services is disturbed, the quality of medical act is perturbed by the medical staff diminishing salaries or increasing number of working hours imposed.

The health technology assessment applied to the field of human medicines is one of the main used mechanisms, to improve the access of patients to innovative medicines in countries like Romania. Under the national authority with competencies in the field, the Health Technology Assessment may be the driving force of this process by which European recommendations could come closer to each nation citizens through reimbursing innovative treatments, making accessible to all people the most innovative results of medical scientific researches, treating better numerous people diagnosed with high incidence severe diseases cancer, cardio-vascular diseases or rare conditions with highly severe outcomes.

CONCLUSION

Health technology assessment is a young process in the field of scientific research, a dynamic mechanism of optimization and active implication of patients and health professionals, to support the political decision making to drive the health sector to its success.

An aggregated but versatile strategy is required to build a nationwide health infrastructure allowing the data sharing between all health's players: providers, consumers, and payers, according to fundamental principles built on patients' interests, safety and security.

The health management information systems are, in fact, business information systems, providing competitive advantage based on document content, analysis within data base applications and business intelligence software's able to make technology uses a better support of the decision making to develop the medical and administrative acts also as profitable and performing businesses where all data recorded.

The current research addresses the necessity that the today Health Technology Assessment process be officially put under the executive lens - framework, mechanisms and actors involved, to emphasize the results already obtained and design its prioritized strategic path to obtain the maximum of benefits for both society and any patients in need.

Keywords: health technology assessment, innovative treatment, health system fortification

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HOW ENTREPRENEURIAL ORIENTATION AND STAKEHOLDER ENGAGEMENT SHAPE INNOVATION AT FAMILY BUSINESS

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ABSTRACT

PURPOSE OF THE RESEARCH

The importance of innovation today is fully recognized by both academic and business communities (Chesbrough, 2006). The sustainability of family-owned enterprises involves linking innovation with the entrepreneurial orientation of their decision makers (Kaufmann and Shams, 2015; Bughin, Chui and Johnson, 2008; Smith and Lohrke, 2008). This paper aims to verify how the entrepreneurial orientation of Family Business (FB) allows them to adopt innovation to become sustainable in the long term.

CONCEPTUAL MODEL AND PROPOSITIONS

The concept of EO (Entrepreneurial Orientation) developed by Miller (1983, 2011) considers that this requires a constant balance between the proactive, innovative behaviour and the propensity to risk, in a one-dimensional perspective. Another approach considers EO divided into several dimensions: the assumption of the risk, proactivity and the propensity for innovation, backed by Covin and Slevin (1989), Zara and Covin (1995), Wiklund (1999) and Anderson, Kreiser and Kuratko (2015). Lumpkin and Dess (1996) and, extended this concept by introducing the dimensions of autonomy and competitive aggressiveness, giving it a multidimensionality perspective (Lumpkin et al., 2013; Wales, 2016). According to Miller (1983), and Anderson et al. (2015) an entrepreneurial orientation translates decision models and management practices, that includes the assumption of risks, the search for change, innovation, and proactive action with the purpose to outperformer their competitors. Hall and Vredenburg (2003) sustain that viable change innovation is more complex than the conventional, market-driven novelty, because it must reveal a wider range of stakeholders. Business need to innovate by reinventing the way they relate to their multiple stakeholders: employees, customers, competitors, suppliers, communities, governments, etc. But at the same time, the dynamically managed relationships with stakeholders can become an important source of ideas for innovations that report stakeholder expectations and eventually add to the welfare of the social and natural environment (Ayuso et al., 2011). Base on the above, the following propositions related to

entrepreneurial guidance were formulated: P1: The risk assumption by entrepreneurs of family-owned enterprises positively influences the adoption of innovation; P2: The proactivity of family-owned entrepreneurs positively influences the adoption of innovation; P3: The innovative behaviour of family-owned entrepreneurs positively influences the adoption of innovation; P4: The autonomy of the entrepreneurs of the family companies positively influences the adoption of the innovation; P5: The involvement of different stakeholders in family companies positively influences the adoption of innovation.

METHODOLOGY

Indirect information gathering techniques can play a key role in the conduct of research, particularly when they favour access to the narrative of different actors who describe their beliefs and experiences in the first person. When these techniques are supported by credible sources, the researcher can contact a large volume of information, thus constituting powerful tools, among others, for the generation or validation of hypotheses (Colás, 1998). In this research, ten interviews to current managers and other stakeholders, namely leaders, white colour workers and others, were analysed from a tv program, dedicated to Portuguese FB, belonging to various sectors: food, cosmetics, art supplies, ceramics and paper. These FB are small and medium-sized enterprises that have been developing their business through several generations. All the programs have been viewed. Then, seeking to ensure methodological triangulation, a content analysis was held by four researchers and resorted to software *NVivo*. Have been analysed the main themes, categories and subcategories of information that result from the participants' discourse and establishing a relationship between them, developing categorical schemas, conceptual schemas, and testing their acquisition of data (Azevedo, 1998).

FINDINGS

The analysis of the literature led to the identification of three major themes, around which the discourses of the various stakeholders are organized: the entrepreneurial orientation, the stakeholders' engagement and the innovation. When we performed a frequency analysis of the speeches given by the interviewees, we noticed that some of the subcategories stand out. When it comes to entrepreneurial orientation, the risk assumption category is clearly highlighted by the boldness to explore new opportunities. As far as pro-activity is concerned, the pioneering approach to the introduction of new products, services and / or technologies emerges, followed by customer monitoring. The innovative behaviour subcategory reveals a focus on launching new products and innovative solutions. About stakeholder engagement, workers and the surrounding community are

the ones who are mainly present in the expression of these interviewees when compared to clients, suppliers and the family itself. Finally, in the innovation category the focus of the participants was distributed in a balanced way by the three following subcategories – flexibility, openness to the external environment and attempted and error learning. Concluding, we can say that these FB were forced to evolve and innovate, both by vicissitudes of history, such as changes in consumer habits, constituting cases of companies that show a superior performance in way of dealing with the risk, making use of the know-how and value of employees and the external community. Furthermore, developing new products, and inventing novel solutions to solve problems, through a flexible trial and error learning strategy, had been critical.

ORIGINALITY AND VALUE

The main contribution of the present research is to prove qualitatively the dimensions of entrepreneurial guidance and engagement for the culture of innovation. Entrepreneurial orientation, in conjunction with stakeholder involvement, reveals an important organizational capability for the development a culture of innovation.

LIMITATIONS

Although this work has been conducted based on indirect data collection, the source is credible and provide information directly by the different stakeholders of the companies involved. However, it would be interesting not only to increase the volume of cases, but also to have the opportunity to make direct contact with the current managers of the companies involved, validating the model.

THEORETICAL AND PRACTICAL IMPLICATIONS

The distinct categories of entrepreneurial orientation were of different importance to the concerning companies analysed and it was found that this orientation had an influence on the development of a culture of innovation. These findings confirm theoretical assumptions of the multidimensionality of entrepreneurial orientation concept (EO), presented in the work of Lumpkin and Dess (1996) and Lumpkin et al. (2013). Beyond, the results show the importance of the involvement of internal and external stakeholders for the development and creation of a culture of innovation (Freeman, 1996; Ayuso et al., 2011; Hart and Sharma, 2004; Holmes and Smart, 2009).

Keywords: Entrepreneurial orientation, Family business, Innovation, Stakeholder engagement.

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PEEBLE IN THE SHOE? CONTENT MARKETING MADE IN PORTUGAL

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ABSTRACT

Content marketing constitutes an increasingly invaluable option for several brands and companies to attract and retain an audience by establishing a contact that ultimately leads to a positive feedback. It is unquestionable that the internet has become a major part of every company or brand content marketing strategy. With its advent, consumers are now able to access information about a product information regardless of their current location, making the “Made in” seal gain importance, as it affects the perceived quality of the product as well as a powerful insight to help consumers decide to buy their products.

Consumers judge the product’s quality based on their countries of origin, something which affects different aspects of its evaluation and choice (Andéhn et al., 2015). Such a judgment often reflects the picture, reputation and stereotype – positive or negative – that the consumer holds towards a country (Agrawal & Kamakura, 1999) or its reputation in a particular product category (Marchant & Ward, 2003).

In short, the literature review regarding content marketing is very limited. It basically points to the idea that while full of potential – both on the academy and the management environment – this marketing strategy is yet to achieve its maximum potential. Even more so, there is a lack of academic studies that specifically deal with the impact and influence of content marketing on the country-of-origin effect.

Against this backdrop, this study aims to explore how Content Marketing can be employed to reach foreign consumers as well as to increase and create positive associations to products “Made in”. And by so doing contributing to overcome the lack of studies regarding this scientific domain.

To achieve it, a single case study with a deductive approach was selected for this paper, comprising APICCAPS (Portuguese Footwear, Components, Leather Goods Manufacturers’ Association). It is unique within the Portuguese scenario, for being the only national association to use content marketing as part of their marketing strategy. Furthermore, the “Made in Portugal” shoes occupy the

second place in the “average price per pair of shoes” ranking, following Italy’s brands, which is revealing of its worldwide relevance. Lastly, unlike most companies that use content marketing to boost their brand equity, this paper deals with an association whose primary goal is not to reinforce the quality of a specific brand but rather promoting a number of associates - which also constitutes an

original and underexplored object study: the performance of Content Marketing as a tool to raise and/or establish positive associations regarding the Country- of-origin.

The data was obtained through semi-structured interviews aimed at exploring *how* and *why* APICCAPS uses content marketing as part of its strategy to raise or create positive associations that foreign consumers have regarding “Made in Portugal” shoes.

It concludes that APICCAPS develops both commercial and informative contents which are later distributed through different channels and are used as tool to establish a relation between foreign consumers and to promote good associations with the Portuguese brands. Those contents highlight the national culture and aspects such as the gastronomy, the designers’ personal life and the fashion tips, which are likely to go unseen on a normal marketing campaign. By enlightening the consumer about the Portuguese’s culture, interviewing models, entrepreneur and designers and by sharing news regarding the sector, the association is telling the consumer a story, with the goal to bring it closer and growing interest. While one might argue that part of the content produced by APICCAPS walks on the line of the commercial content, most of it has swift from the paradigm of selling to helping – and, in this case, informing (Angel Wong An & Rashad, 2015).

While both concepts – content marketing and country-of-origin – relay on telling a story, APICCAPS managed to combine these as a tool to boost COO effect and good associations between Portugal and the “Shoes” product category. This approach, which is mainly directed to international consumers, attempts to develop and/or reinforce a connection to the Portugal in line with the goals of country-of-origin effect (Andéhn et al. 2015, and Verlegh et al., 2005). Through contents focused on promoting Portugal as a “brand” it was possible to change the not so positive association to “Portuguese Shoes” back in 2009 and that consumers are now willing to pay 50% more than in the recent past, thereby confirming that consumers might develop a good association regarding the quality of a specific product (Dagger and Raciti, 2011; Yunus and Rashid, 2016).

However, APICCAPS invests in traditional means such as printed paper to the detriment of more avant-garde digital tactics. The association does indeed produce some digital contents – mostly for website and newsletter – originally developed for offline supports and later recycled to digital platforms. By so doing, the company chooses not to fully exploit the full potential of the digital advantages brought by the internet. Indeed, APICCAPS does not take full advantage of the Web 2.0 and User Generated Content as well as Search Engine Optimization and social media. The same applies to e-Word of Mouth concept, since it does not explore or encourages content sharing and does not maintain a close relationship to influencers. Those digital alternatives, which could allow the brands to better understand their consumers thorough the multidirectional chat that allows

consumers to submit their feedback, are still for the moment a pebble in the APICCAPS's shoe, preventing the association to fulfill its mission and purposes regarding its content marketing.

The Portuguese shoe sector study case is revealing of the shifting dynamics and paradoxes involved in moving from the traditional to the digital. Whereas the evolving landscape points to marketing 4.0 as becoming imperative for the brands, APPICAPS is still in the stone age.

Keywords: Content marketing, made in Portugal, country of origin, semi-structured interviews, single case study, APPICAPS, Web 2.0, User Generated Content, e-word of mouth

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AN EXPLORATORY INVESTIGATION OF EXTREME VS TRADITIONAL SPORTS IN ADVERTISING

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ABSTRACT

This study provides an exploration of consumer reactions to advertising set in extreme sports and in traditional sports. In their rush toward finding new trendy sport disciplines and attractive contexts, marketers are nowadays making a massive use of extreme sports. Extreme sports are activities where participants are subject to unusual physical and mental challenges such as speed, height or natural forces and that often require extreme endurance and/or quick reflexes. Such activities require pushing the physical and mental limits to the edge; the ultimate goal is providing strong sensations by undergoing seemingly impossible challenges and difficulties (Yan & Bonanno, 2015) whose successful overcoming feeds the idea of belonging to an elite group of “superior” men/women (Lyng & Matthews 2007).

According to cognitive adaptation, difficulties and challenges are present in traditional activities, but are unsought and actively minimized to restore a risk-free condition (Taylor 1983). Indeed, situations pushing to the limits and exposing to extreme difficulty lead to painful psychological processes to rebuilt self-identity and to minimize the perception of those challenges and difficulties (Jayawickreme and Blackie, 2014). Thus, while sensationalism is not negative per se in traditional activities, it is sought by means different than voluntary risk-taking. In summary, the difficulties and challenges that can be found in traditional and extreme activities might even be the same, but the mindset they activate is very different if not opposite. Hence, we posit that advertising appeals related to difficulty and challenge might work quite differently in the contexts of extreme and traditional sports.

A total of 6 mock-up ads of the same product category (watches), sport type (biking) and brand were used as stimuli. Respondents were randomly assigned to 1 of the 6 experimental conditions according to a 2 (sport type: extreme BMX vs. traditional biking) × 3 (ad focus: difficulty, challenge, baseline) between-subjects experimental design after pretesting the correct identification of the sport types as extreme and traditional, respectively, and of the ad appeals as related to difficulty, challenge with oneself, and neither (baseline) Respondents were asked product attractiveness (Fuchs et al., 2015), brand attitude (MacKenzie & Lutz, 1989) and purchase intention. One hundred eighty questionnaires were recruited from crowdsourcing online panels (Mage = 34.82; 40.4% female; 50% active participants). A Multivariate Analysis of Variance was run with ad appeal and sport type as

independent variables, and with brand attitude, product attractiveness and purchase intention as dependent variables. No significant main effect was found for sport type (Wilks $\lambda = .975$, $p > .10$) or ad appeal (Wilks $\lambda = .955$, $p > .10$), but a significant appeal \times sport interaction emerged (Wilks $\lambda = .915$, $p < .005$). Follow-up univariate analyses reveal that the interaction has an impact on product attractiveness, $p < .05$) and marginally on purchase intention, $p > .10$), but not on brand attitude, $p > .10$). We then run post-hoc comparisons among the appeals. As challenge- and difficulty-based appeals emerged as equally effective ($p_{\text{attract}} > .10$, $p_{\text{purchase}} > .10$), we combine them in the following post-hoc comparisons. We find that in extreme sports they are more effective than the baseline appeal in shaping product attractiveness ($M_{\text{base}} = 4.27$ vs. $M_{\text{challenge}} = 4.79$, $p < .05$), and marginally also purchase intention ($M_{\text{base}} = 2.64$ vs. $M_{\text{challenge}} = 3.01$; $p < .10$). Instead, as anticipated we find a pattern switch in traditional sports, where it is the baseline appeal to be more effective on product attractiveness ($M_{\text{base}} = 4.45$ vs. $M_{\text{challenge}} = 3.76$, $p < .05$), and marginally on purchase intention ($M_{\text{base}} = 3.20$ vs. $M_{\text{challenge}} = 2.6$, $p < .10$). No gender- (Wilks $\lambda = .988$, $p > .10$) or age-related effects (Wilks $\lambda = .984$, $p > .10$) emerged.

Results suggest brands should consider changes in their advertising strategies when it comes to advertise using extreme sports or traditional sports as advertising contexts. Advertisers should be aware that in extreme sports they would need to emphasize issues of difficulty and challenge with oneself, but to de-emphasize them instead in traditional sports. In a nutshell, give each context what it needs, and don't mix the two.

Keywords: extreme sports; edgework; advertising effectiveness

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STRATEGIC LEADER & LEADERSHIP FOR SUSTAINABILITY IN PROJECT MANAGEMENT

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ABSTRACT

Infrastructure projects suffer endemic cost-time overruns and project organisations concerns for protection of environment has been criticised. These projects, generally, make use of transactional leadership approach in getting things done efficiently rather than the higher innovative and responsible leadership with ethics-moral, concerns for societal aspirations, wellbeing, protection of environment, and economical viability as required in today's market dynamics (e.g., Mukerji, 2017; KPMG, 2009; Cole, 2003). The practitioners who provide bulk of the leadership across levels work long hours and under unprecedented challenges. They endure high stress, job insecurities from repeated organizational restructurings and shortage of skilled workforce. They have interests in taking higher responsibility in their 'self' development, and in making differences for stability and growth. They welcome practical organisational education-training and management support in their development (Mukerji, 2017, 2012).

Infrastructure projects are often large, highly sophisticated and organisations are showing increasing interests for changes for making the difference to sustainability. An analysis of the causes of the drift of strategies from the key needs of the environment and the causes of project cost-time overruns point to important lessons for the organisation and the leaders not only for transformational change but also to proactive decision-making for strategy changes and planning for success in world market dynamics (e.g., Mukerji 2012, 2017; Shenhar, Dvir, 2007; Hain, Preuss, Pinkse et al 2014). This conceptual paper is based on review of over 100 seminal published multidisciplinary literature of reputed scholars, experts, as well as reports and standards of renowned authorities and body of knowledge (BOK). Literature posits the influence of organisations' history; culture, governance and learning-education (L&E) systems often show a lack of dynamic balance for adjustments with the changing environment resulting in increasing gaps in strategy development for responsible competitive performance. Paper investigates development of strategic leadership-of-self (LOS) capacities of practitioners across levels to minimise cost-time overruns as well as proactively respond to evolving challenges and opportunities for sustainable breakthrough performance to position the projects as sustainable competitive weapons in world markets.

Paper targets development of healthy, university educated engineers, marketing and other professionals providing bulk of the leadership across and within project management (PM) levels in

positions such as trainee managers, through team leaders, project managers, in governance and so on. Literature emphasises that the culture seems to be an important element to development and sustenance of ethics-moral behaviour across leadership domains (Hammond, Clapp-Smith, Palanski, 2017; Day, Fleenor, Atwater et al. 2014; Laudato si" Papal Encyclical; Weiming, 2015). Position titles and responsibilities of leaders as well as governance settings, organisational culture etc vary amongst different companies. Thus, there is no one right set of answers to complex leadership challenges in unique infrastructure projects in different organizations (Avolio, 2007; Crossley, Cooper, Wernsing, 2013; Day, Fleenor, Atwater, et al 2014). The leadership process requires leaders with flexible capacities to make differences in their unique situations and in their own styles of leadership to be innovative and within the governance settings for the PM. Paper recognises that LOS capacity development for sustainability is complex and takes time (UNDP, 2009; Crossley, Cooper, Wernsing, 2013).

Literature posits leadership occurs at all domains of life (e.g., work, community, family/friends, and influence of body-of-knowledge or BOKs). The collaborative interfacing with expert colleagues, other stakeholders with helping each other relationships for success of self, team, and PM inside and outside of the workplace significantly empower leaders' validation of their *thoughts-words-actions* for performance (e.g., Hammond, Clapp-Smith, Palanski, 2017; Mukerji 2017; Avolio, 2007; Day, Fleenor, Atwater, et al 2014). LOS capacities developed and sustained by the leader's own initiatives as well as support of organisational culture and individualised state-of-art education-training-experience would go a long way to gradually developing leader's contemporary spiritual-humanism, altruistic mindset and behaviour for sustained societal relationships and inner-renewals to individual potential best capacities for sustainable project management leadership (SPML). Paper suggests a flexible blend of transactional, transformational and spiritual (but not necessarily religious) leadership for practitioners to adapt in the spirit of SPML to their situational needs (Jamaludin, Rahman, Mukhbal et al, 2011; Fuller, 2001).

Paper contributes the "context" for SPML. It provides the key generic insights and guidance to practitioners to adapt to their individual mindset and leadership strategies for responsible leadership with attributes for masterly facilitation of expert team members towards societal relationships for innovative decision-making, develop LOS and leadership breakdown structure, concerns for ethics-morality, protection of environment, wellbeing, and profitability efficiently and effectively. The proposed flexible SPML framework includes state-of-art socio-cognitive L&E model, partial framework of PM, model of sustained LOS development underscored by spirituality, necessary artifacts for practitioners adaptation for growth and sustenance of high collaborative performance based on mindset for utilitarianism and altruism (Joseph, 2015; Doloi, 2007; Drucker, 2005; Hain,

Preuss, Pinkse et al 2014). The spiritual underpinning of SPML supports leaders' self-cultivation for growth of self-awareness, practical divinity, mindset towards image building for trust, and altruistic performance in the essence of contemporary spiritual humanism and happiness (Seltzer, 2013; Narain, 2000; Weiming, 2013; Jamaludin, Rahman, Mukhbal et al, 2011). The study contributes to advancing the science of leader development in the environmental dynamics.

It is increasingly evident that outstanding organisational strategies supported by sound governance and culture, L&E leads practitioners' LOS capacities to gradually develop into sustainability in protecting organisations reputation; wellbeing, drives innovation, and employee engagement which satisfies consumers, attracts and retains top talent; leading to market differentiation and so on all of which are key ingredients for long-term growth and profitability. SPML and LOS capabilities are expected to drive and uphold the sustainability within changing environment (PwC, 2018; Hain, Preuss, Pinkse et al, 2014; Graen, Grace, 2015; Mukerji, 2017; Kotter, 2016). SPML is strategic and cross-cultural. It requires support of organisational governance, education-training and culture. SPML is not a myth. It represents the emerging trend in project management.

Keywords: Project management, leadership, leadership-of-self, learning-education, sustainability, ethics/moral, spirituality, spiritual humanism.

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LINKING EFFECTIVE LEADERSHIP COMMUNICATION TO SOCIAL CAPITAL

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ABSTRACT

Organisations and their leaders face the challenge of weaving a web of sustainable relationships, through engaging a multitude of stakeholders to establish resonance, trust, and ultimately social capital. Social capital refers to the sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. It is argued in this paper that effective leadership communication could contribute to building social capital, and ultimately positively impacts the organisational performance.

The study was approached from a qualitative paradigm and comprised four phases. Phase I of the research entailed Rodger's (2000) evolutionary concept analysis of leadership communication to discover the essence of this phenomenon. During this phase the development and history of leadership communication was explored, similar and surrogate terms of the concept were discussed, and attributes, antecedents and consequences of leadership communication were identified.

Phase II comprised a hermeneutic phenomenological study. During this phase in-depth phenomenological interviews, with respondents who are regularly exposed to leadership communication, were conducted. An adapted version of Groenewald's (2004) five step explication process were employed during this phase. The unit of analysis was employees (communication practitioners) exposed to leadership communication.

In phase III an evolutionary conceptual analysis (Rodger's 2000) of social capital was conducted to establish the conceptual foundation of this phenomenon.

In the final phase (IV) the results of the first two phases were compared with the results of phase III. It was established that effective leadership communication may contribute to the creation of value networks with multiple stakeholders. It was therefore concluded that effective leadership communication has the potential to build social capital which contributes to sustainable organisations. In this paper practical guidelines to enhance leadership communication effectiveness is proposed.

Keywords: Leadership communication, Social capital, Conceptual analysis, Phenomenology, Stakeholder relationships, Value networks

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MINDFULNESS TRAINING: HOW TO BECOME A BETTER LEADER

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"The true value of a human being is determined primarily by the measure and sense in which he has attained liberation from the self."

Albert Einstein

ABSTRACT

We offer a single case study that explores and evaluates 8 week mindfulness training for a leader with an executive responsibility for a medium-sized organisation in a highly competitive industry.

Mindfulness training in various forms has been increasingly gaining recognition in healthcare, education, wellbeing and leadership development (e.g., Reitz & Chaskalson, 2016; Van Dam et al., 2017). Due to the popularity of this approach *Time* magazine famously announced the 'mindfulness revolution' (Pikert, 2014); since then, the UK government has announced it wants their country to become a 'mindful nation'. Despite this wide practical application, our understanding of what works, what does not and why these things occur is far from complete. This is largely because of definitional inconsistencies, methodological issues and limited, and times contradictory, empirical evidence. Scientific investigation of mindfulness benefits in healthcare is certainly leading the field, while our insights in how it works in leadership development remain limited.

The Buddhist skill of mindfulness was first introduced into the Western world in the late 1970s, due to its capacity to reduce stress and improve wellbeing, the aspect many organisations still highlight today when embracing mindfulness. However, it has much more to offer to business leaders who run organisations in a volatile and uncertain environment, where complexity, information overload and constant connectivity exert enormous pressures.

Mindfulness is about managing the most precious productive resource, the human mind, learning to see its internal processes, habits and how they lead to patterns of behaviour often leaving us unaware about what we do and why. It is also about choosing ethical and wise action to minimise harm to self and others (Kornfield, 2008). This requires training attention, developing compassion, and embracing new attitudes to see multiple perceptual lenses that colour our view of reality and define how we react to whatever unravels around (Holzel et al., 2011).

We find three major outcomes of mindfulness training for executive leaders.

1. Improved decision-making

Constant pressure of executive jobs may undermine clarity of thinking, but mindfulness creates a mental muscle to monitor one's thoughts and emotions as they arise, creating a space for choice instead of acting on impulse. For example, a tendency for quick action to fix the problem may not be what the situation requires. Mindfulness training builds an ability to check one's intention, notice any self-protection tendencies that drive the primal reaction to act, e.g. reacting to fear of failure to deliver what others expect of you. An individual is then able to recognise and control a compulsive need to fix and genuinely attempt to understand the situation instead.

Further, decision-making in the age of complexity cannot rely on traditional analysis alone, ignoring other, more subtle, information. Mindfulness techniques forge a mind-body connection and train attention to notice sensations in one's body (e.g., a rise and drop in energy) as well as read others with enhanced accuracy (e.g., are they being genuine or telling you what you want to hear?).

2. Positive organisational climate

Executive power comes with responsibility to create and maintain a positive organisational climate, where people feel energised to do their best possible work. To deliver that, leaders need self-awareness and commitment to their own well-being. Their mind state and emotions are contagious and high stress levels may limit their intentions to self-preservation. The result is being perceived as unapproachable. Mindfulness trains moment-to-moment self-awareness and the ability to optimise one's internal state for effective leadership. For example, it is crucial to acknowledge negative emotions and thoughts. When we use mindfulness to accept them as an experience that comes and goes and explore them with curiosity, they dissipate. When we suppress them, the result is quite the opposite.

3. Authentic connection with stakeholders

Businesses exist to provide an avenue for human beings to exchange value, making employees and customers most important stakeholders. Deep understanding of their needs and perspectives is only possible when we approach human interaction with empathy and compassion, being open to whatever arises. Mindfulness helps keep one's ego in check, exposing any tendency to judge others or their ideas and seek refuge in a 'right or wrong' mindset. This opens a door for continuous learning and staying open to possibilities instead of looking for the right answer.

In conclusion, we believe that mindfulness is not an optional skill, it is a must for any business leader who wants to succeed in today's exciting but challenging environment.

Keywords: Mindfulness, leadership, emotional intelligence, decision making, wellbeing

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WEB ANALYTICS ENHANCING PROJECT PLANNING: THE CASE OF DIGITAL MARKETING CAMPAIGNS

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ABSTRACT

RESEARCH GAP AND AIM

While traditional literature in the field of Project Management places a good emphasis on the crucial implications of an accurate project planning, some scholars have been facing a crucial dilemma. In fact, during the planning phase it is often observed a reverse correlation between the importance of the decision and the availability of information (Dawson & Dawson, 1998). The usual approach undertaken to deal with this dilemma is to increase available knowledge about the project, postponing irreversible decisions with the aim of gathering more information (Yang et al., 2011). The approach just mentioned fosters flexibility, as a key factor to safeguard projects from the effects of uncertainty. Terms like adaptability and robustness are often used by scholars as synonyms, to describe the process of delaying irreversible decisions, until more information will be available (Olsson & Magnussen, 2007). The inclusion of new data would not be a matter of re-planning, but more precisely of proactive planning (Gao et al., 2014). Among the benefits associated with proactive scheduling, one of the most prominent is the possibility to include both arrival of information and future decisions that might unfold. The meaning of proactivity is related to the ability of understanding which items or services will become popular in rapidly changing environments and quickly respond to it (Vaagen, Wallace and Kaut, 2011).

In this guise, an effective and responsive answer to the matter of capturing the value of arrival information could be given by exploiting innovative data mining practices. The subject is commonly defined as the process of recognizing meaningful patterns of knowledge deriving from various data sources, e.g., databases, texts, images, the Web, etc. Characteristics of the patterns are validity, usefulness, and legibility (Liu, 2011). Data mining has found multiple applications in the business field, ranging from marketing, quality management and risk management (Nakhaeizadeh, 1998), but also banking, telecommunications, insurance, retailing and medicine and the purposes span from fraud detection, to credit scoring, customer retention, product placement and drug testing (Berry and Linoff, 2004).

So, the focus of this research work is established on projects in the Digital Marketing field and on a certain type of data, deriving from the behaviour of users on the Web, enabling data mining practices. These data are called Web analytics (WA) and are described as "the measurement, collection and reporting of Internet data for the purposes of understanding and optimizing Web usage" (Web Analytics Association, 2008). More in depth, Web analytics enable the process of trace and read virtual traffic, by learning how the user interacts with a site (Farney and McHale, 2013). Thus, the research has the purpose of proposing a model to approach Web analytics in the planning phase of a project, responding to the emerging need of a structured approach.

METHODOLOGY

The combination of Web analytics and Web mining was rarely observed. More specifically, the belief of the authors is that a structured approach to Web analytics will improve the planning phase of a project. By involving in the research managers working heavily with Web analytics in a project setting, it will be possible to exploit the systemic features of the empirical world, combining them with the characteristics of theoretical models (Dubois and Gadde, 2002). Moreover, a qualitative research could provide valuable insights to the researchers performing an exploratory study, intending to contribute to the standardization in the use of Web analytics in the planning phase of Digital Marketing campaigns projects, as rarely done before. As for classical qualitative research, interviews are the commonly used method used to perform data collection and the semi-structured format is the preferred one (Kallio et al., 2016). The interview guide adopts a terminology that managers could understand, because of the prior experience that one of the authors has in the Digital Marketing field. Also, a first version of the interview guide was tested and improved after performing a pilot study. Following a priori considerations made on the topic and determining the content of the interview guide (Tacq, 2010), semi-structured questions have been proposed to several managers and consultants working in the field of Web analytics. Based on Whiting (2008), selection criteria used in this study are: 1) to be knowledgeable about the topic, 2) to be able to provide the interviewer with detailed information about the area of investigation and 3) to be open to share own knowledge.

MAIN FINDINGS AND IMPLICATIONS

According to the research findings, the use of Web analytics could be valuable both on the determination of reliable project goals and KPIs and also in the development of a distinctive capability of the firm. By systematically making an use of Web analytics, deriving from prior projects, the management could move from a descriptive use of Web analytics data to a predictive use of them. Thus, the interviews conducted with consultant and digital marketers allowed the authors to

understand in which phases a Digital Marketing campaign is typically structured, allowing them to make a link with the subject of Project Management and therefore to fulfil the aim of the paper. By doing this it has been possible to connect the phases of the project, that are initiation, planning execution and closure (Project Management Institute, 2013) with the five steps proposed by Bekavac & Garbin Praničević (2015) and Waisberg & Kaushik (2009) namely objective determination, KPIs definition, data collection, data analysis and finally change implementation.

Looking at managerial implications, some investments are suggested in order to train employees to have the capability to read and interpret correctly the meaning of Web analytics data, being able to link them with the ultimate goal of the project, but also with the context in which the company is competing. The awareness that KPIs and parameters have little meaning when approached outside the context is described by our respondents as fundamental to play in the Digital environment. Thus, investments should be aimed at building internally the capabilities to store historical data, in a safe environment and to make a statistical use of those.

Keywords: Web analytics, Project Management, Project Planning, Digital Marketing, Big data.

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FIRM PERFORMANCE EFFECTS OF GENDER DIVERSITY IN CORPORATE BOARDS AND SENIOR MANAGEMENT

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ABSTRACT

PURPOSE

The purpose of this study is to contribute to the discussions about gender diversity in corporate boards and senior management by providing evidence on its firm performance effects in a multi-country framework.

DESIGN/ METHODOLOGY

Our sample comprised all firms in the Euro-Med area operating in the consumer goods and services sectors. Excluding firms with missing board or financial data, the final sample comprised 843 firms across 9 countries which are Bosnia and Herzegovina, Croatia, Cyprus, France, Greece, Italy, Slovenia, Spain and Turkey. Our choice of sector is based on the expectation that it would be more likely to find women's participation in corporate boards and senior management in sectors where the firm's survival is directly linked to how well the firm understands consumer demand. Hence the firm would at least be motivated to include women in top management in order to benefit from the sheer understanding of the female consumer. The board and senior management data was not available in a readily extractable format, hence we constructed a unique database listing all board of directors' members and senior management by looking through their biographies to make sure we identified gender correctly. All board structure and financial performance data are obtained from Thomson-Reuters®.

FINDINGS

There was no women participation in senior management and in board of directors in 13% and 76% of the firms, respectively. There was a statistically significant and positive correlation between the number of women and firm size as measured by market capitalisation. We used both accounting-based and market-based measures in order to proxy for firm performance. In the univariate and multivariate regression analysis we used alternative definitions of gender diversity by using the number of women, the percentage of women and a dummy variable which equals 1 if there is at least one woman present in the senior management or the board of directors of the firm. Overall, it is

possible to say that performance of effects of gender diversity tend to be associated with market-based, rather than accounting-based, measures of performance.

IMPLICATIONS

In this research area, there are numerous arguments ranging from ethical considerations to better corporate governance. More than a decade ago, Norway was the first to adopt a quota for women board members, followed by other nations discussing and/or adopting mandatory or voluntary quotas. Well aware of the many number of factors in play, such as board size, board structure, individual differences and team dynamics, as well as, cultural and county differences, this study asks a simple question of whether gender diversity affects the bottom-line.

ORIGINALITY/ VALUE

The originality of this paper stems primarily from the sample selection. Despite the fact that most studies in the literature tend to focus on US (and to a lesser extent UK) boards, in recent years there have been some much needed studies, from other parts of the world providing empirical evidence on the relationship between board gender diversity and financial performance (Ararat et al., 2010, Turkey; Campbell and Mínguez-Vera, 2008, Spain; Lückerath-Rovers, 2011, Holland). Our paper contributes to the debate by providing non-Anglo-Saxon evidence in a multi-country context. Another novelty of this paper is provided by the inclusion of not just the board of directors but also the senior management of the firm in the analysis.

Keywords: Board Of Directors, Gender Diversity, Firm Performance, Turkey, Spain, Slovenia, Italy, Greece, France, Cyprus.

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CAN GREEN TAXATION TRIGGER PLUG-IN HYBRID ACQUISITION?

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ABSTRACT

This paper aims to determine if the green tax system, introduced in Portugal in 2014, is able to influence the interest for plug-in hybrid vehicles.

The existent literature identifies a number of factors that influence the interest for plug-in hybrid vehicles, including access to financial incentives. However, empirical evidence is not clear as to which factors are more relevant. On this basis, a survey was carried for users of light vehicles to assess the effect of the factors driving the interest to acquire a plug-in hybrid vehicle.

Our structural equation analysis found a significant positive effect of the Portuguese green tax system over the interest for acquiring a plug-in hybrid. However, the green tax system does not grant an amount capable of triggering a large-scale effect. A significant positive effect of driver's vehicle size on interest for plug-in hybrids was also found. Overall, findings suggest that financial incentives are of first-order importance in explaining the decision of acquiring a plug-in hybrid vehicle.

Keywords: green taxation systems; plug-in hybrid vehicles

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LEVERAGING NETWORKS OF EXCELLENCE BY DYNAMIC CAPABILITIES, TECHNOLOGY TRANSFER AND KNOWLEDGE MANAGEMENT: CRITICAL EVIDENCE FROM REGIONAL BIOTECH CLUSTER.

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ABSTRACT

Purpose: Networks of excellence (NoE) are cooperative research ventures designed to strengthen scientific and technological features by adopting an open innovation approach (Rogers, 1982, 1983; Barney, 1991; Howells, 1996; Powel & Dent-Micallef, 1997; Nobeoka, 2000). The present working paper aims to explore the determinants of a successful regional NoE by the Dynamic Resource Based-View (DRBV) of the firm, which describes three levels of dynamic capabilities, intertwined with knowledge and technology. These are (1) renewing dynamic capabilities; (2) knowledge dynamic capabilities; and (3) technology transfer capabilities (Cohen & Levinthal, 1990; Collis, 1994; Zander & Kogut, 1995; Eisendart & Martin, 2000; Zollo & Winter, 2002; Zahra *et al.*, 2006; Teece, 2007; Del Giudice *et al.*, 2012). We understand that these three levels of dynamic capabilities have the potential to enhance the innovative dimension of inter-organizational networks. . Our argument is built on the characterisation of the three levels, with the first level leading to knowledge sharing activities, the second level referring to all resources involved in an innovation process, and the third level being able to forge advanced resources to foster innovation within businesses (Dixon, 1994; Dinur *et al.*, 1998; Dixon, 2000, Helfat & Peteraf, 2003; Zott, 2003; Kahn *et al.*, 2006). Therefore, given that these three levels are all embedded in a network of excellence, the goal of this paper is to add to the current understanding of the relationship between regional networks of excellence and innovation leading to local economic development, by critically assessing the evidence gathered from a regional biotech cluster (Nonaka, 1991; Gulati, 1999; Helfat & Raubitschek, 2000; Fujimoto, 2002; Helfat *et al.*, 2007; Nicotra *et al.*, 2014).

Design/Methodology/Approach: The methodology is based on a qualitative approach through a case study analysis (Hair *et al.*, 2003; Krippendorff, 2004; Waters, 2008; Lee & Chen, 2012; Yin, 2013). The idea is to offer an empirical analysis to assess knowledge sharing flows and/or innovation levels among the actors of the NoE by using technology transfer, patents, intellectual property projects and licenses, as proxies. The sample of this analysis is a Biotech NoE based in Campania, a southern region in Italy. This network is an incubator space which allows the study of knowledge sharing flows and innovation levels from a diver set of companies and how they create a competitive and collaborative value in the

current highly dynamic market (Badaracco, 1991; Amit & Schoemaker, 1993; Davenport *et al.*, 1998; Bresman *et al.*, 1999; Alavi & Leidner, 2001; Mooradian, 2005; Freeze & Kulkarni, 2007; Anand *et al.*, 2010; Brown & Duguid, 2011; Del Giudice *et al.*, 2013)

Findings By stimulating an intellectual debate in the context of dynamic capabilities and networks of knowledge, the present research seeks to demonstrate the relevance of NoEs for local economic development and showcase best practices generated by a knowledge-intensive network in Italy.

Originality/Value: Given that knowledge and dynamic capabilities are key to the socio-economic performance and growth, we conclude that the creation and nurturing of a NoE can efficiently manage the technology transfer processes and so support practitioners in their day to day operations. Additionally, the research aims to enlarge the current innovation and knowledge management literature by providing a novel study on a networking environment in a knowledge-intensive industry (Prahalad & Hamel, 1990; Simonin, 1999; Foray, 2004; Smith *et al.*, 2005; Craighead *et al.*, 2009; Del Giudice & Straub, 2011).

Keywords: *Dynamic capabilities, Knowledge management, Technology transfer, Business networks, Cluster of knowledge, Biotechnology, Network of excellence*

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THE RHETORIC AND PRACTICE OF CORPORATE SUSTAINABILITY WITHIN LARGE FIRMS AND SMES IN CYPRUS: AN EXPLORATORY STUDY

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ABSTRACT

Academics and practitioners are developing a wide range of knowledge and best practices to strengthen socially responsible competences (Perrini 2006). Businesses are becoming increasingly aware and concerned about various environmental issues and problems. Some adopt an apathetic attitude, others react by simply following public policies and legal procedures, and yet others are more proactive in their approach by launching various initiatives and programs that demonstrate social and environmental responsibility.

CSR requires organizations to adopt a broader view of their responsibilities, one that encompasses not only shareholders, but also several other stakeholders such as their employees, customers, the local community, environmental groups, and other special interest groups. CSR requires operating a business enterprise in a manner that consistently meets or exceeds the ethical, legal, commercial, and public expectations society has of business.” (Business for Social Responsibility <http://www.bsr.org>). In order to meet this responsibility, businesses are required to adopt procedures for integrating social, environmental and ethical aspects, as well as aspects related to human rights and consumer rights into their business strategies and in their relationships with all their stakeholders. An integral part of CSR, as suggested by the literature reviewed, is corporate sustainability.

Montiel (2008) suggests that the management literature uses both CSR and Corporate Sustainability to refer to social and environmental management issues, but there is no clear distinction between the two terms. Sustainability is a desired goal of development and environmental management and the term has been used in numerous disciplines and in a variety of contexts, ranging from the concept of maximum sustainable yield in forestry and fisheries management to the vision of a sustainable society with a steady-state economy. The meaning of the term depends strongly on the context in which it is applied and on whether its use is based on a social, economic, or ecological perspective (Brown et al. 1987). Nowadays, all stakeholders accept sustainability as a driving force for both public policy making and corporate strategies (Finkbeiner et al. 2010). However, the biggest challenge for most organizations remains in the actual and substantial implementation of the sustainability concept (Brand 2002; Bruntland 1987).

The existent literature supports that in their majority CSR activities tend to be primarily adopted and implemented by large corporations (Perrini and Russo 2010; Perrini et al. 2007). Perrini et al., (2007) in their study revealed that large Italian firms are eager to implement specific CSR strategies such as, environmental initiatives. McWilliams (2015) found out that consumers and investors tend to develop strong preferences for socially responsible firms creating a situation whereby primarily large corporations, responded positively, making CSR an important element of strategic management in these type of businesses. Despite the relatively substantial body of literature on the practice of CSR and more specifically corporate sustainability by large firms there is a very limited body of literature and empirical work on the adoption and implementation of environmental sustainability in Cyprus by not only by large firms but also by SMEs. At the same time, there is a need for more evidence in order to support or reject the claim that large firms and SMEs should differ in their implementation approach of environmental sustainability.

The purpose of the empirical study on which the abstract is based, aims at overcoming both of these research gaps and providing a deep understanding of the practice of environmental sustainability in Cyprus by both large firms and SMEs. The study focused on collecting data through in-depth personal interviews with the managing directors of four large corporations and four SMEs operating in Cyprus with the aim of revealing their perceptions, attitudes and experiences regarding the underlying ideas (rhetoric) and implementation (practice) of corporate sustainability by the firms studied. The firms were selected by using convenience sampling since initially a total of 40 firms were invited to participate in the study. From these only eight firms accepted to participate. In general, there was a general hesitation and resistance in participating in the study. The study was exploratory in nature since it was aimed at shedding light on sustainable practices adopted by the firms studied aimed at contributing towards protecting the physical environment. The researchers adopted a qualitative research approach since it was important to collect in-depth and detailed data in an area in which there is limited knowledge and understanding. The study was also aimed at revealing the level of adoption, the type of activities implemented by these enterprises, and the existence of any similarities or differences between these two broad types of firms (large and SMEs) in relation to the rhetoric and practice of corporate sustainability.

Keywords: Environmental responsibility, corporate sustainability, SMEs, large firms, Cyprus.

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THE VALORIZATION OF “SLOW TERRITORIES” THROUGH THE DEVELOPMENT OF SUSTAINABLE AND EXPERIENTIAL TOURISM

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ABSTRACT

The sedimentation of resources and specific expertise in a particular territorial reality is the foundation of those, which are increasingly being defined “slow” territories. The meaning “slow” should not be referred to a situation of delay or backward, or to merely rural provincial areas, but to a development approach away from the traditional model of growth, oriented primarily to the quality of the territory and lifestyle. It is, in fact, low geographic density areas, which have a significant rural setting, from a business fabric made from quality companies on a territorial basis and an important heritage of tangible and intangible resources (art, food and wine, landscape, etc.). These contexts are not well known, but often contain a significant heritage of excellence. Their common feature is the high landscape quality that, combined with the local history and traditions, configure these areas as real cultural districts.

The distinctive features of the landscape, which is one of the elements most qualifying “slow” areas, are linked to a non-quantitative growth in terms of the built environment, but looking for hospitable spaces, away from the spectacular architectural design. In the model of development of the “slow territories”, which favor the production chain, the landscape becomes the glue for the actions of the different players of the territory and for sectorial policies.

The “slow” territories are not therefore a model of local development, but a growth trajectory that combines economic growth, social cohesion and environmental protection, in terms of sustainability.

In recent years, the “slow” territories have initiated an intense process of construction or reconstruction of a local identity, which gives renewed value to the share capital, to fiduciary relationships, traditions, lifestyle and sustainability.

Sustainable development of a territory is the result of certain territorial government choices, made by defining a balance between economic development strategies, ecological, cultural and social. The integration of economic, environmental and social requires a complex process of involvement of all stakeholders, public and private, operating in a territory, in a systemic long-term vision.

In the management strategies of a territory and as part of an increasing focus on sustainability, the assessment of an activity such as tourism, which more than others interested in natural areas, cultural and social, establishing a composite relationship with the environment, assumes a central significance.

The “slow” territories, which were characterized by the ability to enable development paths quality oriented consistent with their vocation, are presented as actually potentially very attractive to tourists who are looking for quality experiences, pleasant places and traditions, far away from the highly urbanized contexts. The development of territories “slow” in the direction of strong recovery of identity and sustainability is consistent with the changing characteristics of the tourism market that, especially in recent years, highlights the growth of a substantial segment of demand more aware and attentive to responsible, sustainable and experiential dimensions of the holiday. In this context, the promotion of tourism, if able to integrate the three dimensions of sustainability, environmental, economic and social, may be a response of the smaller destinations to competitive challenges that they are facing.

Keywords: minor territories; tourism; sustainability

THE CONTRIBUTION OF MASS MEDIA TO THE ENVIRONMENTAL AWARENESS OF PRIMARY EDUCATION TEACHERS: EXPLORING THE IMPACT OF GENDER

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ABSTRACT

Media are a primary source of information on environmental issues and problems for citizens, and public interest regarding environmental issues has increased in recent years due to the use of media (McManus, 2000, Hutchins and Lester, 2006). Environmental problems have created a need for Environmental Education to develop as a field, in order to promote environmental awareness within society (Ors, 2012, Saikia, 2017). An important element in creating public environmental awareness is the transformation of environmental information into effective knowledge or otherwise its transformation from information for consumption into information for use (CEIA, 2000). The creation of environmentally responsible behavior is achieved through a correlation of social factors, and through the policies applied. The socio-cultural environment and individual characteristics of a person also have an important impact on the influence of mass media (Marquart-Pyatt Sandra, 2012). The aim of this paper is to investigate how gender impacts on the way in which the media shape environmentally responsible behavior among teachers. More specifically, it investigates the influence of the teachers' gender on a series of actions that characterize their daily routine.

The paper is based on a field survey that was carried out during the period 2014-2015 on a sample of 392 primary school teachers in the Region of Central Macedonia in Greece. For the study of the correlation between the categorical variables used, the independence test χ^2 was applied (Agresti, 2002). The intensity of the relationship of the parameters under consideration was interpreted using Cramer's *V* index. The observed *p-value* was calculated using the Monte-Carlo simulation method (Mehta and Patel, 1996). For the statistical analysis, the IBM SPSS ver. 20.0 was used.

Table 1 shows that the majority of the teachers turn off the lights when they leave the classroom. It is noted that there is no statistically significant correlation ($p = 0.052$) between the gender of the teachers and their answers. Marginally more women than men turn off the lights.

Gender		No answer/ No replay	Never	Rarely	Often	Always	Total
Men	Frequency	0	4	0	22	80	106
	%	0.0%	3.8%	0.0%	20.8%	75.5%	100.0%
	CSB+	0	2.0	-1.3	1.0	-1.2	
Women	Frequency	0	2	4	42	208	256
	%	0.0%	0.8%	1.6%	16.4%	81.3%	100.0%
	CSB+	0	-2.0	1.3	-1.0	1.2	
Total	Frequency	0	6	4	64	288	362
	%	0.0%	1.7%	1.1%	17.7%	79.6%	100.0%

$\chi^2(4)=6.822$ $p=0.052$, Cramer's $V=0.137$

Table 1. *Distribution of responses to the question "Evaluate the extent to which you do the following: Turn off the lights when leaving a room" with regard to gender.*

The majority of the teachers regularly recycle. There is no statistically significant correlation ($p = 0.001$) between the gender of the teachers and their answers to the relevant question. In particular, marginally more female teachers than men recycle.

Gender		No answer/ No replay	Never	Rarely	Often	Always	Total
Men	Frequency	2	0	12	56	36	106
	%	1.9%	0.0%	11.3%	52.8%	34.0%	100.0%
	CSB+	0.9	-1.9	2.2	2.2	-3.0	
Women	Frequency	2	8	12	100	128	250
	%	0.8%	3.2%	4.8%	40.0%	51.2%	100.0%
	CSB+	-0.9	1.9	-2.2	-2.2	3.0	
Total	Frequency	4	8	24	156	164	356
	%	1.1%	2.2%	6.7%	43.8%	46.1%	100.0%

$\chi^2(4)=16.467$ $p=0.001$, Cramer's $V=0.215$

Table 2. *Distribution of responses to the question "Evaluate the extent to which you do the following: You regularly recycle" in relation to gender.*

The majority of the teachers tend to buy organic products. Moreover, based on the data in Table 3, there is a statistically significant correlation ($p = 0.016$) between the gender of the teachers and their answers. More specifically, more female than male teachers buy organic products.

Gender		No answer/ No replay	Never	Rarely	Often	Always	Total
Men	Frequency	0	10	24	12	2	48
	%	0.0%	20.8%	50.0%	25.0%	4.2%	100.0%
	CSB+	0	1.9	1.8	-2.2	-1.5	
Women	Frequency	0	12	42	52	14	120
	%	0.0%	10.0%	35.0%	43.3%	11.7%	100.0%
	CSB+	0	-1.9	-1.8	2.2	1.5	
Total	Frequency	0	22	66	64	16	168
	%	0.0%	13.1%	39.3%	38.1%	9.5%	100.0%

$\chi^2(3)=10.086$ $p=0.016$, Cramer's $V=0.245$

Table 3. *Distribution of responses to question "Evaluate the extent to which you do the following: Organic product purchase" in relation to gender.*

Most of the teachers regularly visit parks in their neighborhood. Moreover, based on the data in Table 4, there is a statistically significant correlation ($p = 0.022$) between the gender of the teachers and their answers. In particular, more female than male teachers visit parks in their neighborhood.

Gender		No answer/ No replay	Never	Rarely	Often	Always	Total
Men	Frequency	0	6	12	22	0	40
	%	0.0%	15.0%	30.0%	55.0%	0.0%	100.0%
	CSB+	0	1,5	0.5	0.6	-2.8	
Women	Frequency	0	8	30	56	20	114
	%	0.0%	7.0%	26.3%	49.1%	17.5%	100.0%
	CSB+	0	-1.5	-0.5	-0.6	2.8	
Total	Frequency	0	14	42	78	20	154
	%	0.0%	9.1%	27.3%	50.6%	13.0%	100.0%

$\chi^2(3)=9.442$ $p=0.022$, Cramer's $V=0.248$

Table 4. *Distribution of responses to the question "Evaluate the extent to which you do the following: Visit a park in the area" in relation to gender.*

The environmental awareness of teachers leads them to a series of actions that characterize their everyday life. There is a statistically significant correlation between the teachers' age and the use of energy-saving lamps, the regular maintenance of energy-saving appliances, and recycling. In particular, the environmental awareness of female teachers leads them to switch off lights and recycle. Moreover, more female than male teachers tend to buy organic products and visit parks in their neighbourhood.

Keywords: Mass media, environmental communication, Primary Education.

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BUILDING AN EMOTIONAL RELATIONSHIP WITH THE CONSUMER: ANTECEDENTS AND OUTCOMES OF BRAND LOVE

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ABSTRACT

The goal of this work is the proposal and validation of a new conceptual framework related to the antecedents and the outcomes of the brand love considering the consumer perspective. It bridges a literature gap concerning the determinants of brand love. The literature review suggests that there is a growing interest in the study of the emotional relationship between the consumer and the brands (Albert et al., 2009). Brand love is a degree of emotional liking that a person has for a particular brand (Caroll and Ahuvia, 2006). Nevertheless, Langner *et al.* (2014) defend that there is a way to be traveled until you reach a feeling of love for the brand. This leads to having to consider certain antecedents of brand love. According to Holt *et al.* (2004), a global brand, translates a "common language" for consumers around the world. Moreover, a global brand is related with two critical factors: the perceived quality of the brand and the perceived status of the brand (Steenkamp *et al.*, 2003) which performs as a symbol of status and prestige (Bhat and Reddy, 1998). Therefore, H1: The perceived brand globalness has a positive impact on the brand love. There is no consensus in the literature as to whether brand trust will be a precedent or a outcome of brand love. Brand love is a complex phenomenon and, as such, is difficult to define it (Albert et al., 2009). This study, regards to brand trust as the safety that the consumer has in relation to a particular brand and additionally, treats brand trust as an antecedent of brand love. Trust is not necessarily a requirement for a brand liking, however it plays a key role in the creation and development of this affective bond between consumer and brand (Albert et al., 2009) in leverage brand affective (Palmentier et al., 2006). So, H2: Brand trust has a positive impact on the brand love. The relationships that consumers establish with brands are sometimes considered as extension of the consumer itself (Ahuvia, 2005; Sprott et al., 2009) which represents a brand engagement in consumer self-concept. Consequently, H3: Brand *engagement* in self concept has a positive impact on brand love. Moilanen and Rainisto (2009) stress the importance of brand uniqueness by arguing that it is the tangible and intangible elements that satisfy the rational and emotional needs of consumers that make the brand unique. Thus, H4: The uniqueness of the brand has a positive impact on the brand love.

The superiority of the brand is when, among several brands that share the same attributes, one is perceived by the consumer as being superior to the others (Sharp and Dawes, 2001). The perception of

superiority not only attracts more customers, but these same customers have greater loyalty to the brand (Sharp and Dawes, 2001; Schlitz, 2005). Thereby:

H5: Brand superiority has a positive impact on the brand love.

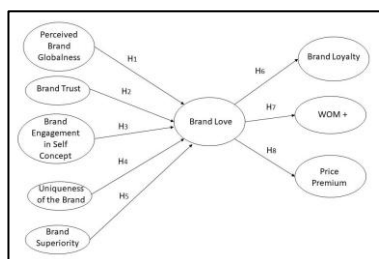
Fetscherin (2014) argues that in the literature, the concept of "brand love" has been used as a holistic term, often encompassing several constructs. Different authors thus suggest that there is an interconnection between brand love and (1) brand loyalty, as Carroll and Ahuvia (2006) argue; (2) leverage word-of-mouth, as theorized by Thomson et al. (2005); (3) the willingness to pay a higher price, as can be seen in the study by Batra et al. (2012).

H6: Brand love has a positive impact on brand loyalty.

H7: Brand love has a positive impact on positive word-of-mouth.

H8: Brand love has a positive impact on price premium.

Figure 1 – Conceptual Model



A survey was administered and the Adidas brand was chosen regarding its global awareness. All measure scales were available in the literature review. The (1) Perceived Brand Globalness from Steenkamp *et al.* (2003); (2) Global Measure of Brand Trust (GBT)" from Li *et al.* (2007); (3) brand engagement in Self-Concept by Sprott *et al.* (2009); (4) Uniqueness of the Brand by Malar *et al.* (2012); (5) Brand Superiority by Kapareliotis (2012); (6) Brand Love by Bagozzi *et al.* (2017); (7) Brand Loyalty by Carroll and Ahuvia (2006); (8) WOM + by Carroll and Ahuvia (2006); and (9) Willingness to pay a Premium Price by Hampel *et al.* (2012). A total of 133 answers were collected, of which 72% were female and the remaining 28% were male. Regarding age, 88 responses were obtained in the age group between 26 and 40 years old, corresponding to 66% of the total responses obtained, 31% of the responses obtained between 16 and 25 years old, the percentage of responses obtained in the bands ages of 41 to 55 years and over 55 years is 12% and 2% respectively. Thus, 100% of the sample responded that they know the Adidas brand. 97% of respondents replied that they had used Adidas branded products, while only 3% replied that they had never used Adidas branded products. In turn, when asked if they had ever bought Adidas brand products 94.7% answered yes, 4.5% said they had never used Adidas brand products and 0.8% did not respond. A confirmatory factorial analysis was performed following the structural equation modeling approach. The structural fit indices were good: chi-square/df = 2.25; RMSEA = 0.091; CFI = 0.835; TLI = 0.814; IFI = 0.838. The results rejected H1 ($\gamma = -$

0,215, $p = 0,401$). So, against the literature review, the perceived brand globalness doesn't positive impact on the brand love. The results obtained, ($\gamma = 0.202$, $p = 0.004$) confirm H2, according to Albert et al. (2009). This means that trust will have an impact on the Adidas consumer love. This result is in agreement with the theory of Palmentier et al. (2006). As stated by Fetscherin and Heinrich (2015), studies that include brand engagement in consumer self-concept have been highly sought after, as Sprott et al. (2009), consumers who have a high degree of brand engagement in consumer self-concept recall a larger number of brands that they own. This hypothesis is validated, ($\gamma = 0.194$, $p < 0.001$), which allows to defend that those brands that consumers see as an extension of your personality will have an impact on the love that the consumer feels for it. The hypothesis H4 was validated, ($\gamma = 0.560$, $p < 0.001$), meaning that when the brand is considered unique by the consumer this will have an impact on the love that the consumer feels for the brand, according with Netemeyer et al. (2004). Hypothesis H5 was also validated, ($\gamma = 0.263$, $p = 0.003$). Thus, in agreement with previous studies, such as Schultz (2005), It can be argued that the Adidas brand is perceived as a superior brand compared to competing brands in the market, thus influencing the love that the consumer feels for the brand. Hypothesis H6 is validated, ($\beta = 1.013$, $p < 0.001$). This means that if the consumer loves a brand then he will be loyal to that brand. In this study, it is possible to determine that consumers who love the Adidas brand are loyal. The H7 hypothesis was also validated ($\beta = 0.892$, $p < 0.001$), in line with the conclusions of Kwon and Mattila (2015), in which consumers in establishing an emotional connection with the brand, in this case of love, will spread a positive message to other consumers. Finally, the H8 hypothesis was validated ($\beta = 0.763$, $p < 0.001$), according to Batra et al. (2012). This study aimed to contribute to the consumer brand relationships literature.

Keywords: Brand love, Perceived Brand Globalness, Brand Superiority, Uniqueness of the Brand, Consumer-brand Relationship, Brand Loyalty, WOM+, Premium Price.

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To be provided under request.

ASPECTS OF SUSTAINABLE TOURISM DEVELOPMENT - ALBANIA AS A CASE STUDY

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ABSTRACT

Tourism is an economic activity, capable of generating growth and employment in the EU. With 1.8 million businesses, primarily SMEs, employing approximately 5,2% of the total workforce or approximately 9.7 million jobs with a high proportion of young people; tourism in Europe therefore represents the third largest socio-economic activity in the EU after the trade, distribution and construction sectors. Europe is the first world tourism destination with 370 international tourist arrivals in 2008; Albania claim rightfully a share of this influx of tourists, as it represents a well-known country for its beauty and cultural and also its natural heritage.

The indicators for tourism sustainability covers a number of aspects:

the responsible use of natural resources, taking account the environmental impact of activities (production of waste, pressure on water, land and biodiversity, etc.),

the 'clean' energy use, protection of the heritage and preservation of the natural and cultural integrity of destinations,

the quality and sustainability of jobs created, local economic fallout or customer care.

For Albanian reality to face those challenges, requires making intelligent decisions, based on useful information. This information can derive from specific indicators identified such as measuring a single aspect of business, or visitors number, or their daily spend and instead combine information on relevant local issues.

Tourism in Albania bears great potential, but as the respective SWOT analysis indicates there is a lack of co-ordinated environmental protection actions, creating a heavy pressure on the natural and cultural environment. At the same time, due to present economic situation it is estimated, high unemployment, low income per capita and a lack of indigenous vocational training and human resources development. Increase in tourist's number is found to have downsides in our country environment related to waste issues and efficient usage of water and energy for local communities.

The overall objective of the tourism industry is to develop a competitive and responsible sector through sustainability improvement of touristic industry. It is estimated that the energy costs are an important cost element for local businesses in tourism industry and thus improvements in energy efficiency mainly through technological solutions is very important. So, one of the biggest challenges

identified, is to reinforce and improve sustainable tourism development in order to ensure the long-term competitiveness of the industry.

Although great steps have been made by national authorities on the issue of energy efficiency in Albanian tourism, it is time now to integrate the above tool into policies.

In particular, it is estimated that the creation of a smart tool MIS which fed with carefully chosen indicators will make possible intelligent decisions and help the stakeholders to measure and monitor their sustainability management process. It has also emerged the necessity for stakeholders to be trained, and young graduates and professionals to be given the chance to improve their skills and become competitive and specialised, improving in this way their employment potential.

It is concluded that all these will help stakeholders to measure and monitor their sustainability management processes and enable them to share and benchmark their progress and performance in the future. Environmental, social and economic factors play a very important role on the tourist's satisfaction enabling the successful development of the tourism industry.

Keywords: sustainable development, tourism industry, tourist satisfaction

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THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY STRATEGY ON FINANCIAL RESULTS OF COMPANIES FROM AEROSPACE INDUSTRY

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ABSTRACT

Corporate social responsibility (CSR) and its impact on the financial results of companies are becoming more relevant every year, and thus deserve due attention, because participation in social business has increased both among investors and companies, despite on the uncertainty associated with how exactly the implementation of non-financial reporting creates financial value. Among the benefits that CSR programs include, the organization's financial success is the most important for shareholders (Palmer, 2012; Cajias et al., 2014).

The aerospace industry undoubtedly contributes to sustainable development. Promoting tourism and trade, it generates economic growth, provides jobs, improves living standards, and reduces poverty. In addition, the relevance of the CSR implementation in this industry is related to the process of globalization of the market, in which companies have to look for new ways of increasing market share, faced with growing competition. Despite the importance of the aerospace sector not only for citizens, but also for its strategic contribution to the development of the world economy, literature and research on the CSR implementation in this field is practically nonexistent, that is why its relevance cannot be overestimated. These factors also led to the choice in favor of studying this strategy in the aerospace sector.

The novelty of the research is not only in the methodology differing from previous studies concerning the regression analysis, but also in the selection of a rather unique industry for consideration. The initial information base is taken mainly from annual reports of companies from 2008 to 2017, non-financial reports, statistical bases Morningstar, Statista and review of available literature. As the main methodology, econometric analysis was used based on the method of ordinary least-squares and the generalized least-squares method. With the help of decomposition, five models were tested.

The impact of corporate social responsibility on the financial performance of companies can be approached from two sides. On the one hand, in practice, the more assets the company is making in the implementation of social responsibility, the less money they have to reinvest in further expansion of production and involved in other projects because the costs are large enough. But CSR costs in the long term can bring benefits to organizations by reducing various risks, increasing productivity as a

result of entering new markets, cooperating with international organizations, and successfully lobbying for society and the state (Cao, 2015; Kelchevskaya et al., 2017; Orlitzky et al., 2003).

Based on a voluminous review of the literature, identifying key industry trends not only globally but also for companies, it would be worthwhile to consider the following variables for constructing the model: financial – ROA, ROE, capitalization, Q Tobin coefficient and leverage; for non-financial indicators were used CSR reporting, GRI standard, corruption perception index, R&D costs, accession to UN Global Compact, environmental performance index and FTSE4Good index series. Control variables – size, age and Fortune 500 – have also been used, and they are not the main priority for interpreting and obtaining results, but related to the dependent variable, so they can complement and statistically improve the sample.

The test results are shown in Table 1. All specifications have a good determination coefficient, and these models are regressions with random effects (which is a common case for sampling with firms). RESET-test showed that all regressions have full specification, and the White test and Breusch-Pagan test - the absence of heteroscedasticity. Also, there was no evidence of multicollinearity.

Table 1. Results of econometric analysis

Dependent variable	Specification	R ²	Relationship	Hypothesis
ROA	-	-	none	-
Capitalization	$\ln y = 0,57 \cdot \text{Fortune500} + 0,85 \cdot \text{Size} + 0,85$ $\cdot \text{CSR}_{\text{reporting}} - 0,65 \cdot \text{GRI} + 0,05$ $\cdot \text{CSR}_{\text{rating}} - 2,79 \cdot \text{Corruption}$ $- 0,47 \cdot \text{UNGC} + 0,01 \cdot \text{EPI}$	93,21%	+	+
Leverage	$y = 2,74 \cdot \text{CSR}_{\text{reporting}} + 3,89 \cdot \text{GRI} + 0,61$ $\cdot \text{CSR}_{\text{rating}} + 0,80 \cdot \text{R\&D} + 0,24$ $\cdot \text{EPI}$	65,92%	+	+
EBITDA	$\ln y = 0,28 \cdot \text{Fortune500} + 0,75 \cdot \text{Size} + 0,59$ $\cdot \text{CSR}_{\text{reporting}} - 0,33 \cdot \text{GRI} - 0,46$ $\cdot \text{UNGC}$	89,56%	+	+
Q Tobin	$y = 0,33 \cdot \text{Fortune500} + 0,06 \cdot \text{Size} + 0,44$ $\cdot \text{CSR}_{\text{reporting}} - 0,36 \cdot \text{GRI} + 0,04$ $\cdot \text{CSR}_{\text{rating}} - 2,06 \cdot \text{Corruption}$ $- 0,33 \cdot \text{UNGC} + 0,01 \cdot \text{EPI}$	61,37%	+	+

We observe that in regression, where the return on assets or return on equity is the dependent variable, there is no significant effect from CSR programs. Basically, under assets are meant: buildings, the equipment, raw materials in warehouses and many other things. If we take into account the specificity of a considered sample, most of all enterprises are in the countries with good value of GDP per capita with the developed infrastructure. It is important to emphasize that most companies do not have significant social facilities on their balance sheets, since they are supported by regional budgets. Variables directly related to corporate social responsibility programs positively influence the market value of companies from the sample, with the exception of the GRI factor, which is responsible for implementing the generally accepted CSR standard in the enterprise. The negative impact of the GRI standard is due to the increasing level of competition in the sector, because the largest market

capitalization belongs to the largest player in the market - Boeing, which currently does not implement this standard, while enterprises following the size of the capitalization use GRI, thereby increasingly responding to the requirements of a socially responsible company. However, in the future the situation may change and the GRI standard in the long term will reflect a positive effect.

Based on econometric testing, it was revealed that social business conduct positively affects the financial results of companies in the aerospace sector. Basically, this correlation was found with indicators that directly related to market factors (capitalization, Tobin's Q ratio). The analysis also showed that today more and more attention is paid to socially responsible business practices not only by researchers, the state, society, but also by the companies.

The results obtained can be used to further study whether there is a link between corporate sustainability and financial performance, and whether the company pays for social responsibility in the long term. Some conclusions drawn in the analysis indicate limitations that follow from the methodology. But, in any case, the conclusion is that, although the positive impact of non-financial reporting on financial indicators cannot be unambiguously confirmed, empirical evidence and research can show that companies do benefit from the CSR policy.

Keywords: csr, aerospace, financial results

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OUTSOURCING CHOICES BETWEEN CONSCIOUSNESS AND INCONSCIOUSNESS

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ABSTRACT

The aim of this extended abstract is to highlight the role of unconscious factors in outsourcing relationships, in particular in strategic outsourcing, in which the activities, functions or processes outsourced are very close to the core-business of the firm, and highly significant from a value creation perspective (Feeny, Lacity, and Willcocks 2012; McIvor, 2000). In these cases, the need of “relational competences” (characterized by both consciousness and unconsciousness) is very high, because of the impossibility to define accurately terms and conditions through a *transaction-based approach*, and because of the consequent need for adopting a *partnership-based approach*. In fact, in strategic outsourcing relationships there is a need to go beyond the purely “contractual norms”, and search for “relational norms” to permit information exchange, flexible interaction and joint resolution of the problems. And it is precisely on this terrain that some cultural dimensions play a significant role, conditioning the decision makers’ choices even unconsciously (Schein, 1985; Hofstetter and Harpaz, 2015).

This study aims to contribute to the strategic outsourcing literature discussing the role of the unconscious factors in outsourcing choices. Previous studies have analyzed the outsourcing process as a rational and conscious process, whereas little attention has been given to irrational and unconscious factors, as well as to the way they affect the outsourcing choices. From both a theoretical and managerial perspective, the role of organizational culture in outsourcing needs to be pointed out and deepened.

Therefore, two research questions are formulated hereby: 1. What are the cultural factors which are at the same time conscious and unconscious factors of choice of whether to resort to outsourcing?; 2. In what way do these identified factors act upon the choice of outsourcing, and, in particular, how do they interfere with rational factors?

Regarding the first research question, it must preliminarily highlight that the “rational factors” for the outsourcing choices generally are: *the need for change* (given the external environmental conditions), the *costs and benefits* of outsourcing, and the related *risks*.

The *need for change* refers to the company’s need to search for new sources of competitive advantage, such as cost advantages, focusing on the core business, risk fragmentation, access to resources, know-how and technologies possessed by third parties. *Costs and benefits* are elements that must be identified and compared through the analysis of all economic, strategic and organisational aspects

involved in the choice to outsource. *Risks* refer to all unknown aspects that are inevitably present in every strategic and operational change that the company might undertake; they are in nature economic, strategic and organisational outsourcing risks.

That is, amongst all the organisational culture factors, those that directly affect outsourcing choices, in both conscious and unconscious way, in our opinion are the following: 1. *degree of path dependency*; 2. *uncertainty avoidance*; 3. *trust*.

The *degree of "path dependency"* that each organisation shows vis-à-vis change; Arthur (1989) and Gordon (1991) highlight that organisations are often mistrustful about implementing new working conditions that consolidate a particular organisational culture. In many cases, the company is bound to a dependence phenomenon that conditions both the objective and rational evaluation of all factors involved in the outsourcing choice.

Since each entrepreneurial decision is taken in conditions of uncertainty, every organization shows a different degree of "*uncertainty avoidance*." It is a dimension of organisational culture that regards the way in which the organisation perceives and deals with the uncertainty of change (Liu, and Almor, 2016); often, it is translated into an overestimation of risks and an underestimation of potential benefits of change.

The "*trust*" that companies have towards partners, if decreased, can limit the tendency to collaborate and share, create mistrust towards the goals achieved by the counterpart, create a tendency to organise strict processes of control and make the relationship quite formal (Kim *et al.*, 2007; Greenburg *et al.*, 2008).

These three factors, can be summarised in the innovative concept of "relational culture".

Regarding the second research question, the thesis hereby proposed can be described through a conceptual model that shows the role that relational culture plays on outsourcing choices and the ways in which its effects emerge. This model highlights the critical factors in outsourcing choices by identifying those related to the unconscious part of organisational culture and those that use the "rational" tools.

As shown in Figure 1, each of the three rational factors is under the relational culture influence; the degree of relational culture will inevitably affect the perception of the need for change, the significance and the importance given to the cost-benefit analysis, and the identification and evaluation of economic, strategic and organisational risks that are linked to the outsourcing choice.

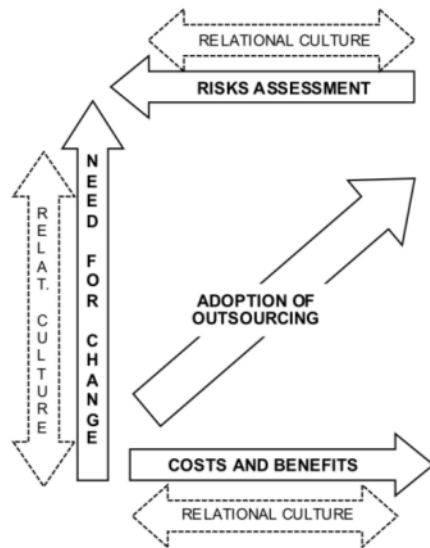


Figure 1. Critical factors at the root of outsourcing choices: A conceptual model

Keywords: outsourcing, organizational culture, partnership-based outsourcing, path dependency, uncertainty avoidance, trust.

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FOOD LOSSES AND WASTE AT COMPANY LEVEL: THE CASE OF BARILLA PASTA

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ABSTRACT

Almost 30% of the global food production gets lost or wasted at some point in the food supply chain (FSC) causing serious economic, environmental and social issues (Gustavsson et al. 2011). In Europe food losses and waste (FLW) of cereals account for about 35% of the total production, and if we consider the pre-consumption stages (from agriculture until distribution), about 12% of the total production gets lost (Gustavsson et al. 2011). Up to now, the majority of literature in the developed countries focused on household food waste (Principato et al., 2018; Secondi et al. 2015). However, since significant food losses happen also in the early stage of the FSC, researches should also focus on it and this will especially involve food companies. According to a study (Champions 12.3, 2017), in 2016 only 20% of the world's 50 largest food companies have quantified base year FLW and have started measuring and reporting on FLW. That is why, with the main aim of analyse its FLW and set targets for their reduction, Barilla, as global leader in the pasta market, and as one of the first in Italy, decided to analyse the entire life cycle - from field to table -of the pasta that it produces in Italy. The reference standard used for this analysis was the global Food Loss and Waste Accounting and Reporting Standard (FLW Standard) made by Hanson et al. (2016). "The FLW Accounting and Reporting Standard (or FLW Standard) is a global standard that provides requirements and guidance for quantifying and reporting on the weight of food and/or associated inedible parts removed from the food supply chain". This standard enables countries, cities, companies, and other entities to develop inventories of how much FLW is generated and where it goes. The FLW Standard defines the components of FLW in terms of the possible material types (i.e., food and/or associated inedible parts) and destinations (where material removed from the food supply chain is directed—see Figure 1). It allows an entity to select which combination of material types and destinations it considers to be FLW, in accordance with the entity's stated goals". Regardless of the particular scope selected, the FLW Standard requires an entity to report on four components: (i) *Timeframe*: the period of time for which the inventory results are being reported; (ii) *Material type*: the materials that are included in the inventory (food only, inedible parts only, or both); (iii) *Destination*: where FLW goes when removed

from the food supply chain; and (iv) *Boundary*: the food category, lifecycle stage, geography, and organization. Therefore for the Barilla Blue Box (pack of 1 kg) here are the selected components: (i) *Timeframe*: The study began in March 2016 and ended in December 2016. Data relevant to semolina and pasta production date back to 2015; (ii) *Material Type*: The total weight of the FLW has been quantified in 1.98 kg for 1 kg of pasta produced. The total is the sum of the food (0.33 kg) and the inedible parts (1.65 kg). “Food” refers to any substance—whether processed, semi-processed or raw—that is intended for human consumption. “Inedible parts” refer to components associated with food that, in the food supply chain, is not intended to be consumed by humans; (iii) *Destinations*: where the material removed from the food supply chain is directed (e.g. food banks, animal feed, etc); (iv) *Boundaries*: Cereal products, entire FSC, in Italy, for all the sectors in the company.

The results showed that FLW that happen along the FSC for the pasta production, could be perfectly reused for other purposes, representing a virtuous example of circular economy, where quite nothing is lost. Indeed, actuals FL in the field are very limited (less than 2%), while the straw obtained during the harvest, weighing the same as the grain of wheat, is normally used as animal feed and for litters. Losses generated during the grinding of the grain and the pasta production amounted around 2%. Aligning to the literature (Guastavsson et al., 2011), the research showed that the greatest wastage is concentrated in the consumption phase. Indeed, according to researches by Barilla and Last Minute Market, the product wasted at the final level (household and hospitality sectors) amounted between 10% and 40%, with the most happening in school catering.

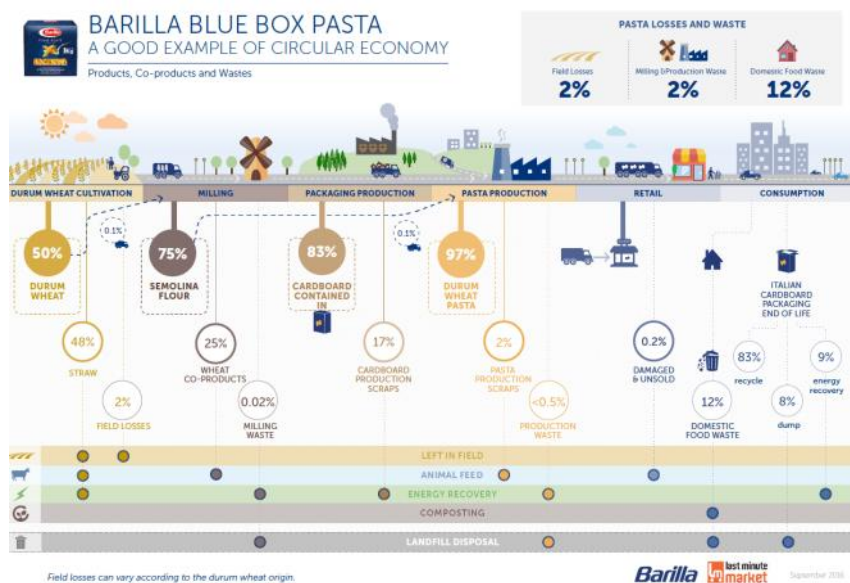


Figure 6 - Barilla Blue Box Pasta Food Losses and Waste and possible reuse of them.

Keywords: Food losses and waste; food supply chain; circular economy; pasta production; FLW Standard

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“TIME” AND “TECHONOLOGY” AS KEY ELEMENTS IN XXI CENTURY NEW BUSINESSES

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ABSTRACT

INTRODUCTION

Overview of the literature review

From Seneca to Sant’Agostino, a great number of philosophers, writers and intellectuals wrote a lot about the “time”: what it is, how we can describe it, how we can measure it, both scientifically and emotionally. Also marketers spent their time to discuss about the *time*; some important examples where “time” was a protagonist are the “product life cycle”, the “just in time” approach, at the basis of the “lean production” and more recently the different time necessary to close a sale brought forward by the e-commerce that have changed dramatically the sales channels and the meeting between offer and demand.

XXI CENTURY SCENARIO

In the western countries, “time” has become more and more a “scarce resource” despite our life expectation has been growing over the years. And as a common “scarce resource”, the economical theory suggests that if a resource is scarce, it appears necessary to reduce the consumption of it for a scope, in order to increase the usage for another.

RESEARCH QUESTION

Because we cannot increase the given time in a day, or in a life, we would not only categorise it as “scarce resource” but also as a “luxury good” nowadays in western countries.

What hasn’t been discussed so far is the time as “luxury good”, as consequence of being a scarce resource. In our research we want to demonstrate that time can be considered a “luxury good” and which implications come from this.

METHODOLOGY

We addressed our research to people living or commuting in Milan.

We chose “Milan”, in Italy, as representative city of “frantic life”. Milan, in fact, is widely recognized as the most frantic city in Italy, record that is also stated by the “Osservatorio socio-economico milanese of

Confesercenti"; moreover the research conducted on 700 people living in Milan, by "Found", a communication agency, reported that 6 Milanese persons on 10 (63%) define their life in Milan stressful and anxious, the main reason is the frantic rhythm (34%) and job commitment (27%).

We sent a questionnaire by e-mail made up of 27 questions. The first part, aimed to understand data about the respondent related to his/her place of living, the time to reach the place of work and so on, the second group, the most important part to answer to our research question, was related to the "time", the relationship between respondents and time, the way they manage it, they perceive it and they decide about it. The third part, finally, was dedicated to investigate on the relationship between the lack of time and the opportunity to save it by using new services such as the food delivered at home, Uber and so on, mainly with the support of the new technologies and apps.

The respondents were 47 people, working or studying in Milan, Italy: 51% males and 49% females. The 83% of the respondents works. Busy people: the 51% of the respondents works more than the standard contract amount of hours. (i.e. over 40 hours per week). The 82% of the panel declared to live a "frantic" week, the 23% "very frantic". Moreover, the 49% of the respondents feels not satisfied of how it spends its spare time. The more you feel not to have enough spare time and the more you would like to use it to for something worthed, thus the feeling of non-satisfaction. The 47% would be ready to spend money to have more spare time and the 64% would spend money to delegate the cleaning, gardening, etc.. The survey investigated also on the frequency of the purchase of already cooked food among the respondents and their awareness of several Food start up, that aim to make you save time and at the same time allow you to have a good dinner and not to eat a sandwich. The result was remarkable for three out of fifteen services, as proof that more and more apps and technology are a support to find solutions to time consuming activities, such as preparing the dinner or ironing shirts.

We actually verified from the results of the survey that we can call the "time" a "scarce resource" and a "luxury good" for the contacted sample.

CONTRIBUTION

As we mentioned earlier, in this way our limited time can be dedicated to other more valuable activities and in order to dispose of some more time, we are ready to pay for services, like receiving good prepared food at home.

In the majority of them, the tool to make it possible is an app installed on the mobile.

In this sense "time" saved and "technology" are new fundamental assets of the new business of our era.

The time as "luxury good" and the support of new technologies and innovations, such as the "apps" and all the opportunities they can provide, have made new business grow up and new innovative

solutions come to life to reply in very short time to several needs of public, from food, to mobility, from e-commerce to different home services, home banking and so on...

Highlighting and demonstrating this, is the contribution of this research, that suggests to focus more and more on these two assets "time" and "innovation and technology" to have the spark to launch new businesses and ideas.

For additional references, please find two examples of new business models: an already known service + mobile phone availability & web connection – No additional assets property.

Uber: The service of transferring people from point A to B was already in place by regular taxies. The great idea is to connect people in need of a lift to several people not working as taxi drivers but just owning their own car and having a mobile phone where to install the application. Uber didn't have to invest money in buying cars for this service or to start full time contracts with the taxi drivers, they simply "simplified" the meeting between supply and demand with the help of technology and by making normal car licensed people become a taxi driver just when they wanted to.

"Just Eat": Food delivery from many restaurants connected to that service, delivery done by the restaurants directly or by private people on their bicycles or scooter, no opening of new restaurants neither purchase of any asset. Again, the idea is successful because it help people to obtain an additional service (to receive certain food at home) from those restaurants that before didn't provide this dedicated service.

Keywords: time, technology, innovation, revolution, new trends, opportunities, start up

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CONSUMER BEHAVIOR AND CULTURE. PRELIMINARY INSIGHTS ON FAST-FOOD CONSUMPTION

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ABSTRACT

The study examines whether the mediating role of emotions between consumer perception of service cues and behavioral intentions is modified by different cultures (i.e., moderated mediation), in a globally-branded service format. A modified M-R model has been developed and tested. A cross-cultural comparison is presented, involving 5 continents and 22 countries. As a research context, the McDonald's fast-food restaurant setting has been chosen due to its extensive geographical diffusion. The study addresses the gap regarding the impact of culture on consumers' emotional reactions and perceptions (Cyr et al, 2010). A multi-dimensional perspective is proposed (e.g., Wakefield and Blodgett, 1996) measuring the environment by an all-inclusive approach (e.g., Bitner, 1992; Baker et al., 2002). Both environmental and non-environmental cues were considered in the model, following extant research in restaurant settings (e.g., Ha and Jang, 2009). Regarding emotions, a unipolar approach is embraced, allowing thereby the simultaneous feeling of both happiness and unhappiness in consumers (e.g., Jang and Namkung, 2009). In the proposed model, emotions are expected to mediate the relationship between environmental and non-environmental factors and customers' behaviour, expressed in terms of intentions and/or word-of-mouth. Several studies have emphasized the impact of culture on emotions (e.g., Triandis, 1995; Steenkamp & Geyskens, 2006). After a rigorous translation and back-translation process, self-administered questionnaires were collected by trained assistants in different McDonald's restaurants, in 22 countries. A multigroup SEM has been estimated; measurement invariance is checked by multi-sample confirmatory factor analysis. As for structural parameters, a fully restricted model is compared to models where each parameter is potentially different in each country. In the final model, significantly different structural parameters are left free, while all other parameters are restricted to be the same among the 22 samples.

Results suggest that emotional reactions to service factors differ among different countries. Global results confirm extant research on the mediating role of emotions in consumption settings; however, magnitude tends to be variable among countries (in some cases, greatly variable). Results suggest that importance of single service cues on consumer perceptions might vary according to different combinations of cultural dimensions (e.g., see Hofstede, 2010). For example, considering Italy, Austria and Slovenia, food impacts more on emotions and intentions in Italy and Austria; service has a stronger

effect on emotions in Slovenia. Thus, different cultural specificities might determine different customers' reactions to the same restaurant characteristics. Moreover, in this sense, emotions are likely to have differential impacts in different countries.

Despite the impact of culture on consumption is established in international marketing literature, results suggest the need, for research, of clarifying the impacts of culture on emotional reactions and perceptions of consumers. Regarding practitioners, cultural adaptation is no more limited to "technical" characteristics of the offering (e.g., adapting food to religious prescriptions, adaptation to local social customs); rather, our results suggest the adoption of an integrated perspective in customizing the offering in diverse cultural realities, through trial-and-error procedures in the different/specific cultural contexts. This should not be longer than 3 pages including the title page, main body, tables, figures and references.

Keywords: fast-food; cross-cultural comparisons; culture.

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A NEW HUMAN RESOURCE: "THE AGE OF REASON"

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ABSTRACT

This study suggests that a large and growing group of able and skillful individuals who happens to be beyond retirement age, are yet not in geriatric state. Two revolutions concerning old age and ability are faced: The first revolution is about extended life expectancy. In 1916 Germany updated the age of retirement to 65. USA adopted the same age in 1935, and Israel and some others followed.

However, in the last hundred years, life expectancy raised for almost 40 years – at the end of nineteenth century life expectancy in Germany was 45. The changes in life expectancy were due both to reduced infancy death rate, and to the more healthy life during maturity. People live longer and reach their seventies in relatively good health and good mental functioning. To be specific, in Israel life expectancy is over 80 for men and over 84 for women, and but many healthy and able individuals are put out of the workforce, once they pass the retirement date. Some improvements were introduced in 2014; men in Israel are retiring at 67. But they still do have well over 10 years of potentially productive years, and a human resource that is not easily accessible for the work environment.

The second revolution relates to the understanding the course of our mental development. The conventional attitude many hold is that we are stuck with the brain we were born with, and with years it just deteriorate. But experiments in neuroplasticity reveal that the brain is capable of generating new neurons, even into old age (Bagley, 2009). Thus the pioneering ideas of Vygotsky(1978) gained a further and wide spread of findings. Nicholes (2017) wrote about a rare group of the older group she calls SuperAgers who over 80 retains sharp memory.

Lanir (2017) addresses both issues in his book, as well as in workshops he conducts. He postulated the term "Age of Reason". Meaning the years where people are able and active but are not really old, helpless and need of constant or medical care. Not just Childhood, Adulthood and Old Age, but Human Resource practitioners, should consider the benefits and shortcomings of this age.

Starting by learning the way colleges recruit retired University Professors, in Israel, University Professors have to retire at the age of 67. However, most of them still have the knowledge and energy to teach. Thus, both the University professors and the College managements utilize the added value of the senior positions and influence in the academy budgets decisions, while the professors gain extra money in teaching and managing positions.

The second case is political activity. Only several people in retirement switch to become professional politicians, with the exception of senior officers who usually retire rather early and have quite positive reputation in the Israeli society. But a large group of individuals, mostly men, tend to be active, at least once a week in the so called "coffee house parliaments". These are voluntary, spontaneous but relatively stable groups, who utilize the broad perspective of the elderly gentlemen, enable them to vent their insights. Unfortunately, old Greece democratic decision making institute is not practiced yet.

Rather well known cases are the independent creative persons. Writers, painters, and various artists and inventors may be active without seemingly time bound – all exemplify the potential of the mature people in the fields of contributing.

An interesting venture is Harvard Institute for retired professionals (2018) offering wide variety of studies where students take an active role determining which topics they wish to put in the curriculum.

But what about retirement homes, which seems to be society chosen solution for the elderly ones? A little more than 3 percent of the population uses such a solution. Retirement homes are a similar concept to kindergartens. Society takes care by keeping old people busy, lots of hobbies and social activity, while the adult in charge run the business. This solution offers taking the responsibility from the family to professional institute, but it does not offer a suitable solution for the independent people who need to make his own decisions. What it is suggested?

We have to abandon the conventions of useless old age, and learn the potential benefits of "The age of Reason" as a new, underused and rapidly growing Human resource. Companies should inquire the specific ways retired people may contribute to their success. Lanir (2017) mentions an example of a very successful branch in DIY Company, where all the workers were retired. Another venue of developing the issue has to do with improvement of abilities, exercising, diets and specific mental practices (Nichols 2017).

Keywords: workforce, retirement, human resource, extended life expectancy, plastic mind, continuous learning

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MEDIATION EFFECT OF BRAND EXPERIENCE BETWEEN DESTINATION BRAND PERSONALITY AND BRAND LOVE: THE PORTO CITY CASE

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ABSTRACT

PURPOSE OF THE RESEARCH

The objective of this study was to examine the mediating effect of the brand experience between destination brand personality and brand love. The theoretical discussion is based on the consumer culture theory and his relationship to marketing (Arnould and Thompson, 2005; Hollebeek et al., 2014) which helped to understand the proposed research model.

CONCEPTUAL MODEL AND HYPOTHESIS

The increase in the number of tourist destinations has raised the complexity in the consumers' decision process (Kumar and Nayak, 2014), and therefore the competitiveness in this business sector. Although the study of destination personality is recent it is known that destination personality significantly affects the behavioral intention of tourism (Stokburger-Sauer, 2011; Klabi, 2012). On the other hand, tourism research reveals that a destination with a favorable personality most likely influences tourism behavior (Chen and Phou, 2013). The tourism destinations can be considered as a brand due to the fact that they contain both tangible and intangible attributes (Ekinci and Hosany, 2006) and can be described in terms of symbolic value and in terms of their personality.

Destination Personality (DP) can be defined as human characteristics that are ascribed to a destination (Hosany et al., 2007). Following Aaker's work (1997), Hosany et al. (2007) which consider that the construct of destination personality includes three dimensions – sincerity (DPS), excitement (DPE) and conviviality (DPC).

The tourism can be seen as a global consumption experience of a destination (Neuhofer, Buhalis and Ladkin, 2012; Ritchie and Hudson, 2009). Experiential approaches shape the importance of hedonic consumption for individuals and pressure that attention should be paid to the activity of developing the right multi-sensory environment, contributing to the value foundation for both customers and companies (Gentile, Spiller and Noci, 2007; Holbrook and Hirschman, 1982). Then, sensory stimuli (visual, gustatory, aural, olfactory, and tactile) have been emphasized as an essential tool for marketing distinctive and attractive holistic consumer experiences (Krishna, 2012). Empirical studies consolidate the significance of the sensory dimension of consumer experiences when

compared with other components (Brakus et al., 2009; Gentile et al., 2007). As such, experiences being existential and personified in people (Pratt and Aspiunza, 2012), are influenced by individuals' characteristics, such as personality, cultural background, knowledge, self-identity, emotional states and memory (Cutler and Carmichael, 2010). Then, it is hypothesized that:

H₁: Destination Personality – Sincerity (DPS) positively influences the brand experience in a city;

H₂: Destination Personality – Excitement (DPE) positively influences the brand experience in a city;

H₃: Destination Personality - Conviviality (DPC) positively influences the brand experience in a city;

Consumers try to find brands which provide them with unique and memorable experiences (Brakus et al., 2009). While consumer decisions can be made on a rational basis, they also follow experiences that provide emotions, feelings, fantasies and fun (Holbrook and Hirschman, 1982). The experience provided by brands is considered to be an important means of realizing competitive advantage (Srivastava and Srinivasan, 2010). Brakus et al. (2009) conceptualised brand experience as the ability of brands to produce specific feelings, sensations, cognitions and behaviours through brand-related stimuli, proposing that both rational and emotional responses are induced. Nysveen et al.'s (2013) review of literature confirms that there is consistency in the conceptualisation of brand experience about sensory, affective, cognitive and behavioural and relational dimensions.

Consumers naturally desire status and traveling or visit a place destination enhancing feelings of elevated status and superiority (Henderson et al., 2011). Consumer sophistication can be understood as "the participation in well-informed action(s) during each stage of the purchase process that is systematic, thoughtful, and goal-directed throughout the entire purchase process, undertaken with knowledge of the consequences associated with its performance" (Newell et al., 2011, p. 17). Tourists develop relationships with the destinations they visit and the place brands that represent them and hope that the experience with the destination meets their expectations. Then, it is hypothesized that:

H₄: Consumer superiority positively affects the brand experience in a city;

H₅: Consumer sophistication positively affects the brand experience in a city;

Numerous researchers have engaged interpersonal love theories to understand the concept of brand love. They have proposed that a consumer's emotional relationship with a brand is conceptually similar to the notion of interpersonal attachment and interpersonal love (Batra et al., 2012). Brand love, means intense emotions of the consumer to a particular brand. Carrol and Ahuvia (2006, p. 80) defined brand love as "the degree of passionate emotional attachment a satisfied consumer has for a particular trade name".

The marketing literature has explored the relationship between brand love and affective experiences (Roy et al., 2013). However, there is a need to study brand experience with the inclusion of

all dimensions with respect to brand love (Garg et al., 2015). As individuals are able to experience the emotion of love for places in general, tourists are able to experience it for tourism destinations specifically (Hosany et al., 2015). Then, it is hypothesized that:

H₆: Brand experience positively affects a brand love of a city destination.

FINDINGS

To measure all constructs a survey of tourists in Porto city was conducted, between October and December 2017. A structured questionnaire was the option to collect data. In the resulting sample of 271 respondents. All items were measured using a five-point Likert-type response scale ranging from “strongly disagree” to “strongly agree” except the consumer sophistication were measured using a 5-point scale semantic differential. The study follows the two-step structural equation modelling methodology recommended by Anderson and Gerbing (1988).

To evaluate the measurement model, we considered the reliability and validity of the scales chosen to measure each of the constructs and, performed a confirmatory factor analysis (CFA) by maximum likelihood estimation method and using AMOS 22.0 and Hair's et al. (2006) criteria. The measurement model's psychometric values are: $\chi^2/df = 2,827$, RMSEA = 0,082, CFI = 0,872; TLI = 0,857; IFI = 0,873. For all constructs, Cronbach's alpha is above of 0,766 and CR values are greater than 0,845. All standardized regression weights are significant at $p < 0.001$. The structural model's psychometric values are: $\chi^2/df = 2,371$; RMSEA = 0,071; CFI = 0,906; TLI = 0,901; IFI = 0,907, allow us to conclude that the model fit was good.

The results obtained in the estimation of the proposed conceptual model show that in respect to the destination personality only the dimension of sincerity (DPS) ($\gamma = 0,246$, $p < 0,05$), and conviviality (DPC) ($\gamma = 0,354$, $p = 0,05$) explained the brand experience, which leads us to accept H1 and H3. The consumer superiority increases the tourists brand experience ($\beta = 0,584$, $p < 0,001$) as expected, which leads us to accept H4. Regarding to the consumer sophistication, the results showed that this variable is not statistically significant to increase the tourist brand experience ($\beta = - 0,079$, $p < 0,1$) as expected, rejecting the H5 hypothesis. The brand experience positively affects the brand love ($\beta = 0,635$, $p < 0,001$) as expected, accepting the hypothesis H6. The proposed conceptual model is validated allowing to conclude that the brand experience mediates the relationship between destination personality and brand love.

THEORETICAL, PRACTICAL IMPLICATIONS AND LIMITATIONS

Knowing the characteristics about those who visits Porto, how they appreciate the city, mediated by their experiences, are certainly factors that will help to influence the intensity of the

emotions in relation to this brand. Knowing how these variables relate can contribute to define a brand positioning strategy. It is understood that the main limitation of this research is related to the characteristics of the sample, since this one was constituted by the subjects who, in downtown of the city, accepted to integrate the study. However, the 271 respondents came from very different countries, so that it would be interesting to carry out an analysis considering the origin of tourists, especially those who constitute the main visitors of the city as well as distinguish the factors that justify the choice of Porto city to visit.

Keywords Destination Brand Personality, Brand Experience, Brand Love, Porto City, SEM

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CONSUMER-BRAND RELATIONSHIP – TWO RIVAL MODELS TO EXPLAIN THE CONSUMER RELATIONSHIP WITH A LUXURY BRAND

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ABSTRACT

PURPOSE OF THE RESEARCH

The current study purposes two alternative models to empirically evaluate the consumer's relationship with a luxury brand – Armani. The model A consider the sense of community, brand equity and brand identity as antecedents of brand love leading in turn to consumers to have certain behaviors, particularly in terms of brand loyalty, willing to pay a premium price and positive WOM. Using brand engagement as another construct of emotional consumer brand relationships, the authors suggest that the sense of community, brand equity and brand identification as antecedents of brand engagement leading to brand loyalty, willing to pay a premium price and positive WOW (Model B).

CONCEPTUAL MODEL AND HYPOTHESIS

The consumer's relationship with the brand has received considerable attention of both the academic and business, since it was realized that the roles that contribute to building the relationship with brands lead to success. The brand love is a relatively recent marketing constructs that applies to products with a major hedonic component. The studies that exist on brand love indicate that it has an important influence on several marketing variables like brand loyalty, premium price and positive word of mouth (Batra et al., 2012). However its interest arises not only as concept on its own but also as a dimension within other concepts, such as the relationship of brand quality and emotional connection (Ahuvia et al., 2007; Albert et al., 2008), brand attachment (Hemetsberger et al., 2009), consumer devotion (Pichler and Hemetsberger, 2008), brand commitment (Rossiter and Bellman, 2012) and brand connection (Pitta and Franzak, 2008). This construct offer a subtle understanding of the different facets of the other brand-related constructs, many of them related to social identification and consistency of the image of the self (Park et al., 2010; Escalas and Bettman, 2003). Into the strategic management of the brand image one can distinguish the functional brand, symbolic

brand and brand experience concepts. The construct of brand love falls within the concept of symbolic brand. Luxury brands can be considered as symbolic brands.

The current study was built with bases on the Batra et al. (2012) work which argues that the integration of brand love in the consumer's identity is the central aspect of brand love (Ahuvia, 2005; Albert et al., 2008; Escalas and Bettman, 2003; Fournier, 1998). The result of Batra et al. (2012) works suggest that the interpersonal theory of love used to construct measures of brand love, omits some important variables and include other unnecessary.

The brand engagement presumes that consumers wish to invest time, energy, money, or other resources, beyond those already invested in the purchase or consumption (Keller, 2003). The academic literature defined the brand engagement as a mental activation process of a consumer towards a brand and considers it a self-concept indicating the variable tendency of consumers to include brands in their self-concept (Sprott et al., 2009; Goldsmith et al., 2011). The academic research on brands has shown that brand engagement construct is an important factor of motivation for buying and for brand loyalty (Flynn et al., 2011; Brodie et al., 2013; Hollebeek, 2011) and positive WOM (Goldsmith et al., 2011). According to Carroll and Ahuvia (2006) the beloved objects require energy and time, which implies that those who show a higher propensity for brand engagement, will be those who love an object or brand. Thus, constructs of brand engagement and brand love can be used to explain the same type of consumer behavior. However, if the backgrounds of these two constructs are identical then its use will be indifferent.

The sense of community is an element antecedent of brand love and can be defined as the affiliation that a consumer feels with other people associated with the brand (Ellemers et al., 1999). This construct is similar to the self-categorization dimension of social identity. The similarity between sense of community and social identity suggests that might also apply to the relationship between sense of community and brand love (Bergkvist and Bech-Larsen, 2010).

H_{1a}: The sense of community influences positively brand love.

H_{1b}: The sense of community influences positively brand engagement.

Recent studies show that brand equity usually refers to the value that consumers perceive or attach to the brand (Hakala et al., 2012). Since brand equity is more related to attributes and the benefits are necessary to guarantee the development of strong affective appraisal by the consumer, brand equity should be necessary condition for developing brand love (Arruda-Filho et al., 2010).

H_{2a}: The brand equity influences positively brand love.

H_{2b}: The brand equity influences positively brand engagement.

Individuals, who identify strongly with the objects they love, reflect an important function of brand love who is expressing their existing identities and improve desired identities (Belk, 1988; Escalas and Bettman, 2003). This brand identity occurs either through direct consumer relationship with the beloved brand or by enhancing the interpersonal relationship (McAlexander et al., 2005). Ahuvia (2005) also argues that the loved objects have a strong impact in determining the individual self-concept.

H_{3a}: The brand identification influences positively brand love.

H_{3b}: The brand identification influences positively brand engagement.

Various authors conclude that the most desirable outcome of marketing strategy is to transform their consumers into loyal ones (Odin et al., 2001). One of the most common consequences of loyalty is that consumers are less sensitive to price increases, thereby increasing the effectiveness of the marketing tools and, generally, improving the business performance and results (Oliver, 1999).

H_{4a}: The brand love leads to loyal behavior by consumers.

H_{4b}: The brand engagement leads to loyal behavior by consumers.

The premium price has been studied by several authors in the brand literature, such as Park and Srinivasan (1994) and Netemeyer et al. (2004). In terms of marketing, it can be considered that the willingness of a consumer to pay a premium price is defined as the amount that he is willing to pay for his preferred brand when compared to a similar product of another brand (or unbranded).

H_{5a}: The brand love means that consumers are willing to pay a higher price for the brand.

H_{5b}: The brand engagement means that consumers are willing to pay a higher price for the brand.

The love feeling is linked to a lot of different behaviours, emotions or feeling in the interpersonal relationship literature. In a consumption context, Carroll and Ahuvia (2006) demonstrate a positive direct effect of brand love on word of mouth. Several characteristics of passion could explain its link with positive word of mouth. Bauer et al. (2007) also demonstrate that brand passion influences word of mouth.

H_{6a}: The brand love influences positively word-of-mouth.

H_{6b}: The brand engagement influences positively word-of-mouth.

METHODOLOGY

A quantitative methodology was employed for this research. It was used a survey to measure relationships between constructs on a theoretical model. The study follows the two-step structural equation modelling methodology recommended by Anderson and Gerbing (1988). All items were measured using a five-point Likert-type response scale ranging from “strongly disagree” to “strongly agree” except the consumer sophistication were measured using a 5-point scale semantic differential.

FINDINGS

Of the 170 consumers who were survey, 42.9% are aged between 36 to 50 years, 57.1% were male, 63.5% were married, 40% of respondents earn more than 3000 euros per month and 28.2% between 2001-3000 euros, 83.5% belongs to a family of 2-5 individuals and 84.7 % have higher education. Hypotheses are tested using structural equation modelling (SEM). Parameters are estimated using the maximum likelihood method. Data analysis, following the two step approach (Anderson and Gerbing, 1988), is used to validate the measurement model and test the hypotheses proposed. This analysis is accomplished primarily through confirmatory factor analysis (CFA). The structural model displaying the relationships among the latent variables are then analysed to test the hypotheses.

To evaluate the measurement model, we considered the reliability and validity of the scales chosen to measure each of the constructs and, performed a confirmatory factor analysis (CFA) by maximum likelihood estimation method and using AMOS 22.0 and Hair's et al. (2006) criteria.

The structural models were constructed to examine the hypothesized relationship amount constructs. The model A fit was good: $\chi^2_{(293)} = 1316,166$, $p < 0,000$, IFI = 0,896, TLI = 0,870, CFI = 0,892, RMSEA = 0,089. All the hypotheses arise were validated, then the sense of community is positively related to brand love ($\gamma_1 = 0,361$, $p < 0,000$), the brand equity has a positive influence on brand love ($\gamma_2 = 0,439$, $p < 0,000$), the brand identification has a positive influence on brand love ($\gamma_3 = 0,238$, $p < 0,008$), the brand love leads to loyal behavior by consumers ($\beta_1 = 0,783$, $p < 0,000$), the brand love means that consumers are willing to pay a higher price for the brand ($\beta_2 = 0,897$, $p < 0,000$) and the brand love influences positive word-of-mouth ($\beta_3 = 0,915$, $p < 0,000$). For the rival model, the effect of the sense of community in the brand engagement was not statistically significant but the model fit without the sense of community is good too: $\chi^2_{(227)} = 1357,289$, $p < 0,000$, IFI = 0,840, TLI = 0,809, CFI = 0,839, RMSEA = 0,091. For the rival model, the brand equity has a positive influence on brand engagement ($\gamma_2 = 0,215$, $p < 0,000$), the brand identification has a positive influence on brand engagement ($\gamma_3 = 0,245$, $p < 0,008$), the brand engagement leads to loyal

behavior by consumers ($\beta_1 = 1,524$, $p < 0,000$), the brand engagement means that consumers are willing to pay a higher price for the brand ($\beta_2 = 1,793$, $p < 0,000$) and the brand engagement influences positive word-of-mouth ($\beta_3 = 1,813$, $p < 0,000$).

THEORETICAL, PRACTICAL IMPLICATIONS AND LIMITATIONS

A comparison between two concepts that reflect the strength of the consumer's relationship with the brand has made it possible to verify that brand love fits better with the data collected for a luxury brand. The results show that makes sense to separate the antecedents of the consequences of brand love. It also shows that brand equity is a construct that should be considered when analyzing the brand love. The perception that consumers have the brand equity can lead to an increased love for the brand. Moreover, it appears that with respect to consumer brand Armani, the brand engagement antecedents factors are not the same as the brand love. The sense of community is not explanatory of brand engagement in the case of the Armani brand. Another interesting result is the highest values obtained for the behavior of consumers in the case of brand engagement with regard to loyalty, premium price and positive WOW.

This study has some limitations. The first concerns the fact that only one luxury brand has been chosen for convenience. Future studies should extend the analysis to different brands in the luxury sector. Another limitation is the very use of a convenience sample with limited data collection.

Keywords: Brand Love, Brand Engagement, Sense of Community, Brand Equity, Brand Identification, Brand Loyalty, Premium Price, WOM+, Luxury Brand

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CAUSE RELATED MARKETING AND GLOBAL BRANDS: HOW DO CONSUMERS PERCEIVE CRM STRATEGIES?

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ABSTRACT

As affirmed by Zhou and Ki (2018) Corporate Social Responsibility is becoming a very common practice among corporations. This is a consequence of their greater awareness about the importance to achieve a sustainable development (which contemplates three dimensions, according to the Brundtland Commission (1987) (that are the environmental, social and economic ones) along with consumers. From this point of view a more responsible approach by companies has become not only a moral duty, but also a tool for marketers.

Birth et al. (2008) highlight that communicating sustainability has three main aims, that are reputation, product differentiation and customer loyalty. So communication, clearly, is fundamental to reveal their responsible conduct by giving consumers information about its benefits, improving their own reputation (Bronn and Vrioni; Pinske and Domisse, 2009; Mark-Herbert and Von Schantz, 2007): the relationship between CSR policies and consumers (Kolk et al. , 2015; Lee and Shin, 2010) is clearly very close.

In this context a particular role is played by the so-called Cause Related Marketing (CRM) which consists of supporting a social cause for marketing purposes (Melero and Montaner, 2016; Singh et al., 2009; Barone et al., 2000). Today CRM strategies are implemented also by global brands, examples are Apple (cause: providing antiretroviral medicine to AIDS patients in Africa) and Nabisco (by contributing to donate to the World Wildlife Fund some revenues deriving from selling their cookies) (Robinson et al., 2012): companies use this marketing strategy in order to improve loyalty and sales (Grolleau et al., 2016; Koschate-Fischer et al., 2012). Positive effects of CRM as a marketing tool in the food sector has been shown by Hartmann et al., 2015; Lafferty and Edmondson (2014), instead, verified through a consumer based study, the influence of different categories of social causes on consumers perceptions, showing that the health cause category and human service cause have a profounder impact than the animal/environmental causes when brands are familiar and the importance of the cause is considered high.

OBJECTIVES AND METHODOLOGY

This research is aimed at exploring the way consumers approach the CRM strategies carried out by global brands. After analyzing they apply this kind of marketing, our purpose is to study consumers and how CRM influences their brand preferences. As highlighted by Holt et al. (2004) global brands compete through quality signals, cultural ideals and social responsibility, in particular they underline that people expect large companies to influence a lot society, both positively and negatively, in particular the scholars affirm that consumers “expect firms to address social problems linked to what they sell and how they conducted business” (p.71). This means that consumers’ expectations about those brands could influence their preferences in terms of purchases and, for this reason, their approach to social problems could strengthen companies ability to compete. It is evident that a marketing strategy must consider consumers’ attitudes towards responsible behaviors, so research is needed in this field. Starting with this premise, this research is focused on Italian consumers’ behaviour towards global brands and their CRM strategies, so from this point of view our goal is to study:

- the profile of consumers demographically discriminated on the basis of their approach to CRM strategies applied by global brands;
- the relationship between their approach to CRM and their preferences for *green* companies (companies which pay attention to safeguard the environment): we hypothesize a positive association.

To this end a questionnaire, essentially based on Likert-scale questions, is being administered to a sample of Italian consumers. From this perspective our research would fill the following gap in literature: how Italian consumers approach global brands and their CRM strategies, in an International Marketing perspective. Findings will be discussed, in order to highlight managerial implications.

Keywords: Cause Related Marketing, Global brands, Consumers, Corporate Social Responsibility, Sustainability

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LEADERSHIP'S NEED FOR KINDNESS IN UNCERTAIN TIMES

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"Before you know what kindness really is you must lose things, feel the future dissolve in a moment like salt in a weakened broth" Naomi Shihab Nye, "Words Under Words" 1995

ABSTRACT

Leadership during periods of uncertainty has an important role in business strategy. This research reviews published works focussing on conceptual frameworks of uncertainty and also on literature regarding kindness and compassion. It explores both theory and practice and whether the attributes of uncertainty impact on values-based leadership.

Much has been written concerning leadership styles and practice (Bass and Bass, 2008). It is widely accepted that leadership has a crucial role in both the success of organizations and also in the wellbeing of society. Little has been explored in relation to kindness and leadership yet poor relationships between leaders, managers and others is a major barrier to performance, wellbeing, and wealth creation (Robertson and Cooper, 2011; Rowland and Hall, 2013). There is also a wide raft of literature concerning uncertainty and many conceptual models. This research reviews and investigates the role that kindness may play in establishing good management practice within organizations in a turbulent world; and whether this role has value in approaches to uncertainty.

The methods used in this research were mainly based on the interrogation of literature. This comprised a systematic review of published works on uncertainty and leadership focusing on the concept of kindness. A sample of published management works was examined; using concept analysis methodology to evaluate leadership characteristics linked to managing uncertainty and the concept of kindness. The sources yielded over 2,000 references and 3,000 identified interviews over a 15 year period. Direct observations by the authors and two small purposive employer and employee focus groups were also employed to gather data.

The acronym VUCA (Volatility, Uncertainty, Complexity, Ambiguity) has been used to describe the instability of the modern world (Vaill, 2008; Hall and Rowland, 2016). Knowledge itself has become transient due to the rapidity of change. Leaders are spending significant amounts of time trying to avoid risk and uncertainty with little effect (Cotelnic, 2009). Findings indicate that there is a conceptual confusion regarding both the definition of uncertainty and its application in kindness leadership. Kindness itself may be viewed as a weakness in contemporary self-selected leadership characteristics. Very few of the books and journals reviewed referred to kindness at all. There has been a recognition

that leaders need to adapt to such change in an agile way but its implications for management strategies has not been fully explored with reference to uncertainty.

Kindness does seem to have a positive energising effect, on both the kind individual and the recipient. Algoe and Haight, (2009) observed that when individuals observe acts of kindness then this appears to instigate feelings of compassion which creates improved inter-personal relationships and trust. Armstrong, (2015) found that in a business or organizational environment, more compassionate staff were happier and more engaged with work, were more willing and able to foster teamwork and kept customers longer and better satisfied with the service. Barsade and O'Neill, (2016), found a similar result with employees who were kind anyway gaining extra performance motivators from working in an organization which shared their values. Leaders therefore, need to be aware when their followers' tolerance levels for uncertainty are wearing thin and when to provide alternative leadership which has more in common with the values held by others.

Conclusions suggest that poor application of uncertainty approaches leads to higher levels of deviant organizational behaviours, risk-averse practices, inauthentic kindness and a decline in efficiency, effectiveness and productivity. Yet in times when clear vision and leadership in business strategy and values is needed at both national and global levels an understanding of uncertainty is crucial to goal achievement. Kindness and compassion remain marginalized. Yet the implications for future trust and employee engagement are neglected in times where discretionary effort of workers and volunteers is crucial to goal achievement. Leaders have to spend more of their pressured time attempting to bring certainty to uncertain times by communicating and negotiating with staff to gain a wider acceptance and understanding of management practices (Herzig and Jimieson, 2006). It is therefore, easier to spend less precious time by instigating hierarchical processes and procedures. Our research indicates that this approach ignores major elements of pragmatic kindness and may be counter-productive. Signs such as cancelled meetings, curt emails, no discussion time, lack of humour, the reliance of process over interactions and spending less time receiving messages rather than giving them suggest leadership and kindness fatigue rather than a more efficient organization (Thomas and Rowland, 2014). Time is now an emotional as well as an economic currency; spending time with employees demonstrates that they have individual intrinsic value as well as acknowledging their contribution to the organization as a whole. Our work above all concludes that kindness costs in terms of emotional and temporal investment. Leaders need the courage to lead with compassion and help navigate in these turbulent and uncertain times.

This paper provides additional insights and promotes dialogue between disciplines that has hitherto been neglected. Our paper calls for sustainable kindness from leadership in the spheres of public and

business environments. This research contributes to knowledge and understanding in a neglected area of international management discourse. In terms of practice it enables organizations to appreciate the benefits of kindness by leaders in terms of both the “bottom line” and good citizenship. Consequently it may help leaders formulate organizational policies that not only enable navigation through the whirlpools and rapids of uncertain times but also ensure healthy workplace cultures that stimulate creativity and employee engagement.

Keywords: Uncertainty, Leadership, Kindness, Pragmatism, Grace, Compassion

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MEDICAL TOURISM FACILITATOR IN AN EMERGING MARKET CONTEXT

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ABSTRACT

INTRODUCTION

Empowering patients through offering options of combining their medical needs with tourism activities fuels an industry called Medical tourism. Studies show that supporting organizations often called medical tourism facilitators (MTF) contribute toward the success of medical tourism, particularly in the emerging markets countries where the industry is still developing (Enderwick and Nagar, 2011). MTF supply supplementary services that become important for care providers and international patients. Lovelock (1995) identifies eight supplementary service clusters (information, consultation, order-taking, hospitality, safekeeping, exceptions, billing, and payment) that facilitate and enhance core product. Despite futile empirical validation of Lovelock's model, researchers still acknowledge the potential of its contribution since it provides a "structured approach" to understand the supplementary services (Frow *et al.*, 2014).

Employing Lovelock (1995) supplementary service model (also known as flower of service), this paper aims to examine how MTFs operationalize in the medical tourism industry in the context of an emerging market. This research seeks to answer two research questions. First, how MTFs are operationalizing as intermediaries. To answer this question, the supplementary service model is used to identify the services offer by MTF to enhance the core service. Second, how important is MTF in the medical tourism industry in an emerging market. A revised model is then proposed. This paper contributes through: (1) test the empirical validity of Lovelock's theoretical model in a unique context; (2) identify supplementary services that add value to the core product; and (3) offer a revised model.

CONCEPTUAL FRAMEWORK

MT is service-driven industry wherein the core product is medical services. Affordability of the service, cheaper travel cost, availability of information in the Internet, and accessibility of advance technology in different country contribute to MT popularity. Yet, study also shows that that patient's travel based on their established linkage to care providers and intermediaries (Hanefeld, Lunt, Smith and Horsfall, 2015). Kay (2007) instigates those consumers' reliance on the intermediaries against traditional doctor-patients' relationship should be taken with caution since some might have limited interest to develop and sustain healthcare outcome. Involving intermediaries like MTF can be seen

significant in many services but can also cause concerns in attaining service quality and consistency (Wilson, Zeithalm, Bitner and Gremler, 2012).

Wilson and colleagues (2012) state that service is distributed by the service principal (creator of the concept) and service deliverer (interact directly with consumers). Services deliverer are intermediaries that co-produce offer, gather multiple service principal and make the product available in a place and time that are convenient for consumers. It posits that MTF acts as intermediaries that offer complementary services that facilitate and enhance medical services. Employing the flower of service framework of Lovelock (1995) helps identify supplementary services and significance MTF in MT delivery. Looking into the structured eight elements can help us understand the role of MTF and applicability of the model in this context.

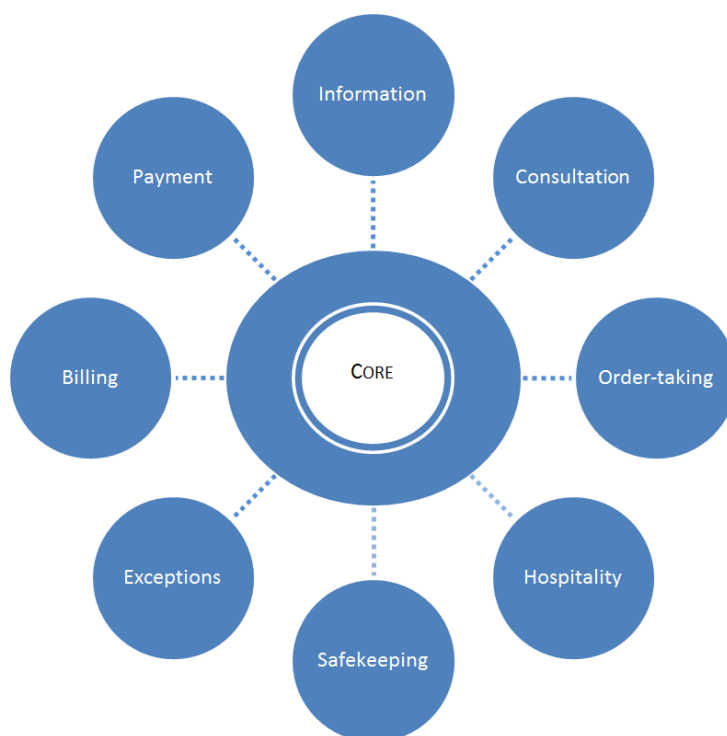


Figure 1. The Supplementary service model

Source: Adapted from Lovelock (1995).

METHODS

The Philippines is classified as EM is among the current MT destination in Asia. Three MTFs were employed. Composite qualitative data, including interviews and gathering relevant documentation through desk-based activity (e.g., reviewing documents, website) were used to triangulate the data (Yin, 1981). Fourteen interviews were conducted, 6 from the three MTFs and 8 with the supporting public and private organizations. Including respondents from different organizations facilitated robust data. Using a semi-structured interview guide gave freedom to the participants to discuss

information that they felt essential to the study. Interviews were recorded and transcribed. For analysis, data from the service providers are compared.

FINDINGS

Lovelocks supplementary service model is not fully validated in this study. *Information, consultation, order-taking, and hospitality* are among the clusters that are explicit throughout the cases. *Billing and payment* are services MTFs have less influence but can be put together with information. This perhaps due to MTFs is only commission based. On the other hand, through consultation (with hospitals and clinics) MTFs can assess applicable *exception*. Thus, exception is placed under consultation. International patients stay mostly in the hospitals (or hotel) and *safekeeping* becomes unrelated to MTFs service. Additional two supplementary services emerge from empirical findings. MTFs play an extensive part in *linking* the industry's stakeholders (i.e., catalyzing collaboration) and *alleviating* the unfavorable reputation of Philippines (i.e., mitigating ambiguity in patients' experience) as an emerging market country.

In summary, Lovelock's model is revised. The initial eight clusters become six; *information* (payment and billing), *consultation* (exception), *order-taking, hospitality, linking* and *alleviating*. This investigation postulates that the MTFs can facilitate and enhance not only the core (medical) service but also the medical tourism industry in an emerging market context.

Keywords: medical tourism, emerging market, healthcare, healthcare marketing, service marketing, flower of service, supplementary service, Philippines

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ACADEMIC AND SOCIAL JUSTICE: ACCOUNTING AND TRANSFORMATION

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ABSTRACT

The urgency of transformation of the Accounting Sciences in South Africa is generally attributed to the lack of diversity resulting in an insufficient number of demographically representative accountants, a lack of globally competitiveness, and contextual irrelevance of the preparation of accountants. This paper set out to explore the role of a university curriculum to enhance diversity within the profession within an African context. It is based on a longitudinal analysis of the demographic profile of the accounting profession in South Africa, as well as an exploration of the interventions necessary for curriculum transformation.

Three theoretical perspectives are used, namely social justice (Chipkin & Meny-Gibert, 2013, p. 5; Lehman, 2012; Waghid, 2008, pp. 19–21), global competitiveness (African Union Commission, 2015; Marginson, 2006), and context relevant curricula (Dall’Alba, 2009; Dall’Alba & Barnacle, 2015). This paper argue that a diverse accounting profession within an African context is a necessity for upholding the social justice agenda and the global competitiveness of the country. It is also argued that the curriculum is a pivotal vehicle to cultivate professional competent accountants and compassionate citizens “deeply moved by a sense of justice and the creation of a more equal and humane society” (Blignaut, 2017). A transformed curriculum is thus a necessary condition for not only the transformation of the demographic profile of the accounting profession in South Africa, but also the accountants as professional human beings with an imbedded respect for diversity.

Keywords: accounting curriculum; accounting profession; transformation; social justice; global competitiveness; diversity; Africa; South Africa

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DEMOGRAPHIC AND LABOUR IMPACTS IN MOUNTAIN AND STEEP SLOPE VITICULTURE SUSTAINABILITY

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ABSTRACT

The labour force availability is recognized as a key factor for the economic and industrial growth of a region. In the agricultural sector there has been a severe reduction of the world employed population, from 40% for 29%, considering the last twenty years (ILOSTAT, 2017). In Portugal this situation is even more pronounced, mainly in the rural regions (INE, 2016).

The labour market of the Portuguese Demarcated Region of Douro (DRD) is closely related to the demographic dynamics (a reduction above 5%, between 2011 and 2016, INE, 2016) fact that is particularly visible due to the moving out of young people towards urban areas (Jan van der Laan, 2016). The scarce hand labour in this region is also related to the agricultural low wages, leading the available workers to search for better paid activities that simultaneously raise their social prestige (Marta-Costa, 2010). The labour shortage nourished by the population dynamics can pose a real threat to the firms productivity (Hosseini et al., 2017) and the countries overall old-age dependency ratio (Fuchs et al., 2017).

It is well known that vineyards located in mountain and steep slope regions as DRD need an available and specialized intensive hand labour force to perform numerous tasks (e.g. pruning, fertilization, weed control, harvesting). Besides, due to their topographic and orographic characteristics, task mechanization is complex and troublesome which increases the hand labour requirements (Moreira and Guedes de Pinho, 2011). To mitigate this problem, extensive surveys and migration programs have been recently on course and simultaneously allowing the income enhancement of low wage workers (Gibson and McKenzie, 2014). In this sense, focusing on vineyards located in southern Italy, Seifert and Valente (2018) found an expressive increase of labour productivity with the 2011 migration wave, motivated by the employment of illegal workers with a significant decrease on the average hourly wages.

This work aims to evaluate the influence of the labour availability (progressively scarce labour force) on the overall income of the sampled farms and also acquaint their sensibility upon external changes (such as the rural exodus or migration phenomena's) using the Fuzzy Average with Fuzzy Cluster Distribution methodology (Hou et al., 2007). The data were collected from 50 face-to-face survey

Douro wine-farms and overall demographic statistics from the region available on INE (2017). To attain further information about future impacts on the wine producers, the time-bounded demographic values were interpolated and evaluated to foreseen future scenarios on our empirical data (wine farms).

Fuzzy clustering differs from the traditional clustering approach since it allows each observation to belong to more than one cluster at the same time. This methodology Fuzzy c-means clustering algorithm (FCM) was developed by Ruspini (1970) and later extended by Dunn (1973) and Bezdek (1981). Lu et al. (2013) states that the FCM algorithm implements the clustering task for a data set by minimizing an objective-function subject to the probabilistic constraint which accounts that the sum of all membership degrees of every data point linked to the clusters must be one. From a comparative point of view FCM allows each observation to retain more information than the k-means clustering, since each observation is not straightforwardly introduced in a given cluster. Similarly, the FCM is easily adaptable to extensive problem formulations. Boreiko (2003) used the FCM to evaluate the readiness of the central eastern European countries to enter the European Union in the following years. Simões (2005) applied the FCM to regional and urban planning.

The classical FCM formulation suits our goals accurately since the partial membership assumption corroborates this article premise of meshed/ranked results per variable. Nonetheless, our problem is not purely an unsupervised problem, since the data compiles a well settled structure with dependent (yield) and independent (labour, size, among others) variables.

The attempts of Hou et al. (2007) and Lin et al. (1995) bundles the FCM approach with a variable input-output oriented environment. Similarly to Hou et al. (2007), we have a sample containing m data points with a single output variable and n input variables. The input and output data vectors are formed in (1) and (2), respectively, where x_i^j represents the j^{th} measurement of the input variable x_i (with $i=1,2,\dots,n$; $j=1,2,\dots,m$).

$$\begin{bmatrix} \mathbf{x}_1 \\ \mathbf{x}_2 \\ \vdots \\ \mathbf{x}_n \end{bmatrix} = \begin{bmatrix} x_1^1 & \dots & x_1^m \\ \vdots & \dots & \vdots \\ x_n^1 & \dots & x_n^m \end{bmatrix} \quad (1)$$

Similarly the output vector (2) acquaints that y^j represents the j^{th} measurement of the output variable y_j (with $j=1,2,\dots,m$).

$$\mathbf{y} = [y^1 y^2 \dots y^m] \quad (2)$$

The goal is to map the relationship between the input and the output variable such as the $x_i - y$ bundle is found (with $i=1,2,\dots,n$). The method of fuzzy curves used by Lin et. al. (1995) originally in fuzzy-neural system modelling to settle the initial variable weights, accounts the definition of m fuzzy rules bonded to the sampled data (x_i^j, y_j) . Those fuzzy membership functions for each input variable x_i are Gaussian membership functions centered at x_i^j

$$\mu_{ij}(x_i) = \exp\left(-\left(\frac{x_i - \bar{x}_i^j}{\sigma}\right)^2\right) \quad (3)$$

While \bar{x}_i^j refers to the center of the membership function, σ accounts for the function's width. The result from the produced defuzzification is given in equation (4).

$$C_i(x_i) = \frac{\sum_{j=1}^m y^j \mu_{ij}(x_i)}{\sum_{j=1}^m \mu_{ij}(x_i)} \quad (4)$$

The fuzzy-curves are calculated and the variables ranked according to their range. In order to acquaint the sensibility upon external changes the Jackknife resample method (Rizzo, 2008) is performed in order to obtain 50 new simulations per variable. The resampling method should shift the obtained curve (equation 4) withstanding the information about each variable sensibility upon external shocks. Therefore the interpretation should rely on the overall obtained range of the newly created 50 fuzzy curves.

The methodology granted the establishment of valuable relationship among grape producers and the expected demographic changes which may jeopardize the overall business sustainability. Beside, the results may be used for provide important political insights to solve the actual problem of the sector related with the sparse source of experienced labour. We also suggest alternative mechanisms to mitigate this problem such as temporary or circular migration programs and the labour supply from locations with lower living levels.

ACKNOWLEDGEMENTS

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Keywords: Population dynamics; Viticulture; Fuzzy Cluster Distribution; Labour scarcity; Douro Region

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NEW TENDANCIES IN CONSUMERS' PERCEPTION AND ATTITUDE AMID THE DEVELOPMENT OF ECOLOGICAL AGRICULTURAL SECTOR

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ABSTRACT

During the last decade, the interest in organic products has dramatically increased for both producers and consumers in many countries, no matter their economic level of development or the political regime. In Romania, the concept of organic production is close connected to food safety and healthy life. Thus, the Romanian's behavior is influenced by their particular interest of being healthy. Their decisions rely on the level of education, self-esteem, incomes or the family/households' size. The idea of smart shopping and eating is sustained by people who appreciate the value of health and acknowledge the necessity of food quality. Nevertheless, in terms of organic agro-food sector development and of the new consumers' attitudes and perceptions, an updated analysis of the environmental products and the potential and prices is required.

The research is aimed to identify and exemplify the trends of perception and new attitude of the modern Romanian consumers, focused more on the organic products' price-quality ratio and taking informed decisions when buying organic products. At some extent, the study looks for the consumers' choices when the products' prices vary from different reasons.

The results indicate that more and more people become aware of the value of organic food despite the fact that they still favor better prices rather the higher quality of the organic foods. The differences between choice, purchase and use of organic products are subjective to a lesson that costumers are learning every day.

INTRODUCTION

At global level, the organic market is constantly expanding and the categories of agri-food products are no longer considered niche categories (IFOAM, 2013). The Romanian agri-market presents some particularities as people were longtime accommodated with the natural taste and good quality of products obtained in their own garden. The transition to the open market altered both the conjectural economic development and the consumers' behavior with regard to what modernity and healthy eating habits mean and how the organic products go along with the ecological agriculture. Hence, during the last 10 years, the Romanian organic products market registered an upward trend, in line with the global market; the number of producers and operators in organic farming increased while the consumption of organic products registered a steady growth (MADR, 2014).

The present study carries out a quantitative research on consumers by identifying if the respondents associate the organic products with the healthier ones or only with more expensive products. Based on the results, we identified that a category of respondents does not distinguish between organic and conventional products.

The literature indicates that most of consumers perceive the organic food as an exclusive one. Customers use to associate those products, automatically, with some having higher prices and similar quality and characteristics with the conventional products. There are also people that recognize the differences between the two categories of food and underline that the prices indicate an improved quality of certain products acknowledging the benefits brought to the consumers' health.

METHODOLOGY AND RESULTS

The research analyzes perceptions and attitudes of the Romanian clients, customers and consumers against the price charged on the organic products to identify what are the most important factors that influence the choices and behaviors when purchasing organic products. We tried also to rank the factors leading to higher prices for organic products and compare them with conventional products, in order to identify consumers' new perceptions and attitudes related to those high prices.

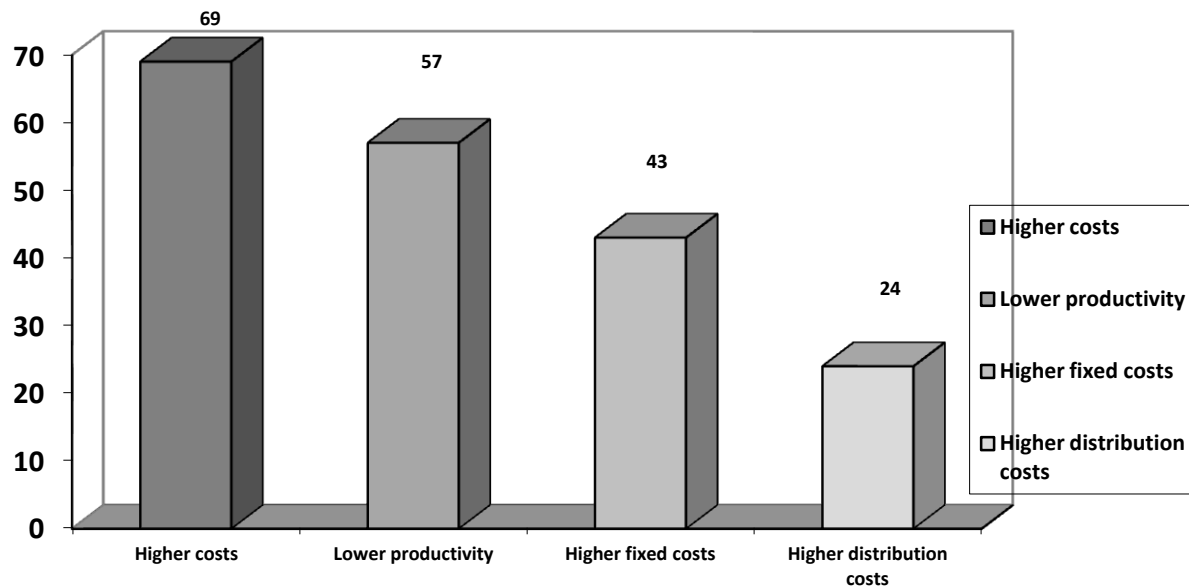
The present study is based on two kinds of inquiries: a) a quantitative research that took place from January to April 2018, based on a questionnaire applied to 400 consumers from all the seven regions of development of Romania; b) a qualitative survey, based on a focus group of 7 organic food producers (one producer from each development).

The surveys were conducted online; two of the whole set of questions were meant to identify the perception of Romanian consumers about the price of organic products, while the rest of them had the role to identify how and at which degree the prices of the ecological products can influence the consumers' perception and their choice to buy the organic products.

The data obtained from questionnaires and interviews were processed using IBS SPSS software.

There are stores where the organic products are traded at higher prices compared to those of conventional products (Atanasoae, 2013). Lots of studies shows that the organic products are sold at higher prices because are part of a special category of premium products (Bozga, 2013). Our researches' results admit the presence of some significant differences between the two categories of products being influenced by different factors such as: higher costs of production, lower productivity, inadequate management of administrative and delivery activities, as seen in Figure 1:

Figure 1. The factors that influence the price of ecological products



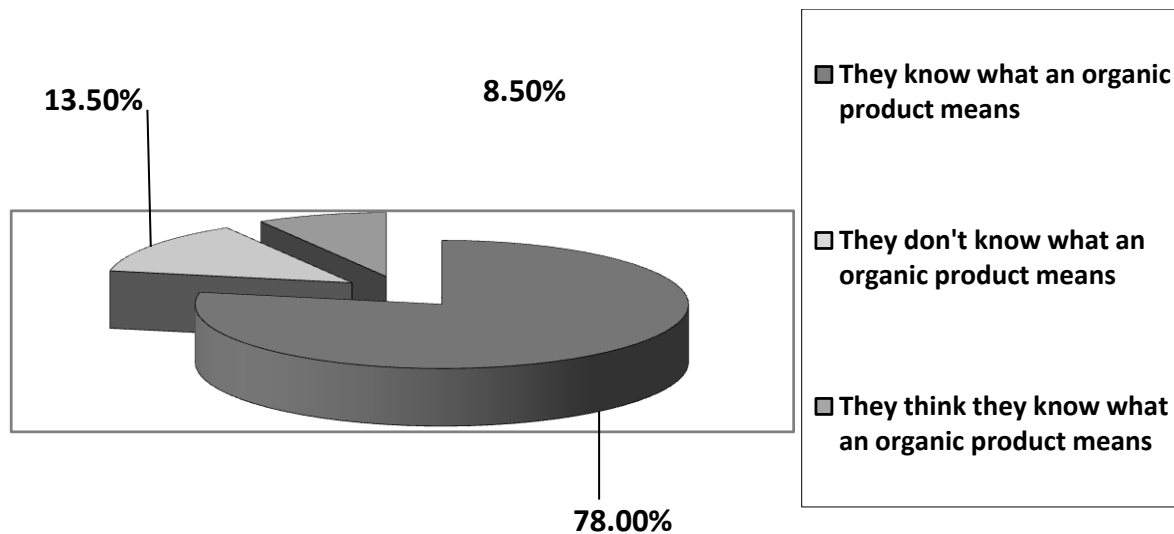
The questions addressed to representatives from the focus group outline that over 65% of the manufacturers indicate that their production costs are much higher for organic productions than the conventional ones (Bozga, 2013). This happens because of the lack of the raw material environmentally certified from the Romanian market. Such materials are legally necessary to consider the production organic and produce organic products. The import of certified raw material generates permanent increases of prices being dependable of the external market flows as well. The prices increase also because of the low level of local productivity that doesn't reach more than 69% while the fixed costs are kept at high rates due to lack of norms, standards for organic products or the misunderstanding of European recommendations that are not put in practice according to the best practices' examples. This situation is even worse when the distribution costs are also considered.

The analysis of the organic agri-food market emphasizes also a lack of sustainable communication and desire to build partnerships between organic producers and traders. Missing an optimal win-win relationship, the traders focus more on quantity and profit while the organic farmers focuses on quality. The qualitative research outlined the fact that the organic products are more expensive compared to the conventional ones, due to much higher costs of production.

ROMANIAN CONSUMERS' PERCEPTION AND ATTITUDES WITH REGARD TO THE PRICES OF THE ORGANIC CERTIFIED PRODUCTS

Following the questionnaire applied to all 400 consumers the following answers have been identified: 78% know what an organic product means, 13.50% do not know what an organic product means, while 8.50% guess that they might know what an organic product means as seen in the Figure 2.

Figure 2. The respondents' distribution on the knowledge over de organic products definition

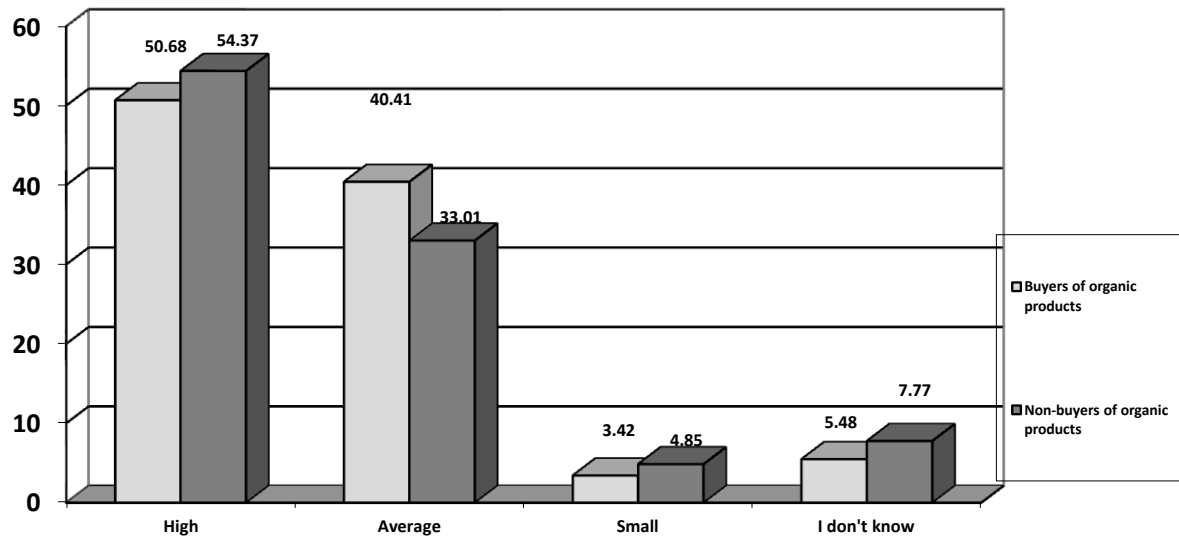


Analyzing the question related to the organic products purchase, we identified that 73% bought organic products, 25.75% bought no organic products, while only 1% guess that they have purchased organic products and only 0.25% do not know if they have purchased organic products.

The questions linked to how they appreciate the prices of organic products the answers received show disparities in the knowledge about the real value of organic food: 54.5% of answers found the prices high, 39% settle them at average, 2.5% considered the prices small while 4% didn't know how to answer at such question.

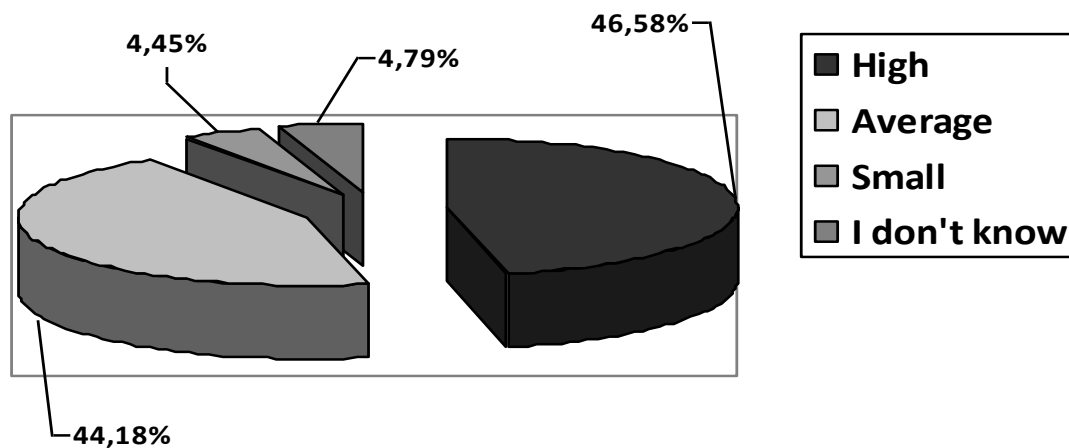
Analyzing the consumers according to their preference for organic or conventional food we identified that, without buying organic products people tended to appreciate them as expensive and almost similar to the conventional products. Thus, 54.37% of those who do not buy believe that the prices of organic products are much higher, while only 50.68% of those buying and consuming organic products consider their prices as high. At the same time, 40.41% of those who buy organic products regard prices as average, while 33.01% of those who do not buy consider prices as medium. Given their low income, the seniors appreciate all prices as high, while the young people appreciation goes for medium prices. (Figure 3)

Figure 3. The comparison between buyers and non-buyers of the respondents' perception distribution of the prices of ecologic products



The surveys outline also the need for consumers to get accommodated, learn more and correctly about the organic products and their value, benefits for individuals' health and society's sustainability. Those who are already familiar with the organic products perceive their value and their attitude for the new types of consumption started to change as only 46.58% of consumers consider that organic products are highly priced compared to quality and 44.18% of them understand that the organic products quality is represented in average prices while 4.45% believe that organic products prices are small compared to their quality. There are also 4.79% who aren't able to appreciate the correct price of organic products in terms of quality and value for health, as seen in Figure 4.

Figure 4. The respondents' distribution on the price quality ratio of ecologic products



A mere 4.45% of respondents consider the ecological product prices low in relation to quality because of their low incomes. The 44.18% of consumers, who appreciate the price of organic products as average compared to their quality, appreciates within the quality of the organic products the value and efforts of the whole production process and know the benefits of organic products for individuals' health and society sustainability.

CONCLUSIONS

The organic products are typically more expensive than the conventional ones due to higher costs of raw material importation, production, promotion and distribution. There is an important category of consumers who know precisely the value of organic products (78%) while 73% have purchased an organic product. Some consumers appreciate the price of organic products as high because of the production process (54.50%) and the difficulties in implementing a new culture and behavior linked to this kind of products. From the price/quality ratio analysis, the number of consumers who appreciate that organic products have an average price represent about 44.18% of all the consumers. The result is closely linked to the level of education, the desire to stay fit as much as possible, the motivation to know more and get better experiences linked to the food safety, the role of organic products in their life and how they can better preserve their own health for longer. The organic products are valued by consumers as products of upper quality, fresher, as premium products category and food that deserve a deeper analysis and more consideration.

Keywords: attitude, perception, ecological consumption, price, Romania

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ISRAEL'S SUBSIDY OF FOREIGN AIRLINES TO EILAT: A BENEFIT OR COST TO ISRAEL'S ECONOMY?

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ABSTRACT

On July 16, 2015, Israel's Ministry of Tourism announced that it was starting a program to subsidized direct flights to Eilat (Ovda airport) for the period from 6 October 2015 to 22 April 2016 (Israel's Ministry of Tourism, 2015). The subsidy was that the Israeli government paid 45 Euros per passenger, and afterwards Eilat's Hotel Association added an additional 15 Euros to the airlines again per passenger. The goal of subsidy was to rejuvenate the foreign tourism industry in Eilat, the southernmost city in Israel. During the 1990s, there had been several years (1995, 1996, and 2000) when more than 250,000 international travelers flew to Eilat, but since then the numbers have declined. 2014 was a poor year with only 92,954 travelers (www.iaa.gov.il/en-US/airports/ovda/Pages/AbouttheAirport.aspx, accessed March 2018). 2014 was a poor year due to a war between Israel and Hamas in the summer of 2014, and because the large fall in the Russian ruble in the fall of 2014, which reduced the number of Russian tourists to Eilat who in 2013 had been around 60% of foreign tourist to Eilat (Rozenberg, 2015). The subsidy was only for the fall and winter seasons since that period is a "down period" for tourism in Eilat because during the spring and summer there are many domestic tourists who come to Eilat. Thus, the subsidy was aimed at bringing European travelers from cold winter climates who would find Eilat's warm weather appealing during the fall and winter. The subsidy program has been renewed in the following fall and winter seasons, from 4 October 2016 through 10 April 2017 and from 15 October 2017 through 29 March 2018 (Israel's Ministry of Tourism, 2016, 2017).

The first airline that participated in this subsidy was Ryanair, which began to offer six weekly flights to Eilat (Ovda airport) between November 2015 and March 2016 from Budapest, Kaunas and Krakow. With the continuation of the program, Ryanair had added more routes, as for example from Baden-Baden, Berlin, Brussels, Frankfurt, Milan, Warsaw, Gdansk and Poznan, and more airlines, such as Wizzair, SAS have begun to participate in the program.

The number of people flying into Eilat from abroad has increased tremendously since the program began, as in 2014, before the subsidy program was instituted, there were 92,954 travelers and in 2017 there were 209,345 travelers (Israel's Airport Authority, 2018). Yet, the subsidy also comes with a cost to the Israeli government and its taxpayers. Of the 209,345 travelers in 2017, approximately 185,477 flew during the period of the subsidy, and hence the Israeli government paid foreign airlines

8,346,465 Euros in 2017. (Eilat's Hotel Association would have paid the foreign airlines an additional 2,782,155 Euros, but as this is an organization of private firms, we will not discuss their subsidy in this paper.)

Does the Israeli government and its citizens benefit from this subsidy to foreign airlines? Israel's government has subsidized many foreign firms in the past, as for example Intel, but in those cases, the foreign firms were employing Israelis in their plants and offices. However, here the foreign airlines are not employing Israelis, and instead the question is whether the subsidy increases the number of tourists flying into Eilat and if yes, does the benefit of these tourists to Israel's economy more worthwhile than the cost to the Israeli taxpayer? While more tourists are flying into Eilat, the answers to these questions are not obvious for two reasons. One, in 2012 Israel signed an "Open Skies" agreement with the EU to allow more airline competition, and this has led to lower fares and many more flights from Europe to Israel independent of the subsidy. Thus, there has also been a large growth of foreign tourists in Israel's main airport, Ben Gurion Airport, which raises the question whether tourists would have come to Eilat even without the subsidy. Two, even if the subsidy is bringing tourists to Eilat's airport, still there is no guarantee that the tourists stay in Israel, as it very easy to cross from Eilat into Jordan and Egypt. Accordingly, it could be that tourists are flying into Eilat and then leaving Israel, which means the subsidy is benefitting the foreign airlines, Jordan and Egypt and not Israel.

This paper will attempt to determine whether the subsidy is beneficial or not to Israel's economy. We will begin with a brief historical review of the development of the tourist industry in Israel in general and in Eilat in particular. Afterwards we will review the effect of the subsidy in the three fall/ winter seasons since the subsidy began. We then will compare the growth in incoming tourists in Eilat since the subsidy began to the overall growth of foreign tourists in Israel to see if one can credit the subsidy with increasing the number of tourists to Eilat. Finally we will compare the change in the number of incoming tourists to Eilat with the number of tourists staying in hotel rooms in Eilat to give some indication of the benefit of these foreign tourists to Israel's economy.

Keywords: Government subsidies, infant industry argument, Israel's foreign tourist industry.

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THE SIGNIFICANCE OF GENDER DIVERSITY IN CORPORATE GOVERNANCE

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ABSTRACT

Title VII of the Civil Rights Act of 1964 prohibits discrimination in employment on the basis of sex, yet over 50 years later, the path for women to rise to positions of organizational leadership is still illusive. The number of women in boardrooms in the United States is disappointingly low. Current statistics show that women comprise only 19.8% of board seats of companies in the 2017 *Fortune 1000 companies* (Gero and Son nabend, 2017). This may be due to numerous factors including gender bias seen through management feedback, performance recognition and reward, and promotion, which all contribute to women's frustration with their work environment.

Additionally, we see that women face different problems at work, such as, having their contributions undervalued (Heilman and Haynes, 2005), and being disrespected or questioned about their competence and productivity (Correll et al, 2007), which is exacerbated if a woman has children. Moreover, there is also asymmetry in the way in which both men and women perceive one another in a workplace scenario, as both genders have different views on what aspects of work should be prioritized and what factors contribute to constructing a healthy workplace (Peterson, 2004). Thus, there is need for targeted solutions such as policies for equal opportunities, promotion of a gender inclusive environment and supporting women who become mothers. Within the corporate board itself, researchers have noted that "sex-based biases or stereotyping by male directors might be inhibiting women directors' voice" within boards, which could explain why some studies find weak correlations between female board presence and firm performance even when causal mechanisms are known." (Galbreath, 2011, p. 30).

The purpose of this research is to examine the significance of gender diversity in corporate governance and offer proposals for reform both in business and in law. We first examine empirical studies regarding whether female presence on boards may be correlated to positive performance measures. For example, one analysis found that a high proportion of women on a Fortune 500 company's board is associated with significantly higher return on sales (ROS) and return on invested capital (ROIC) (Joy et. al, 2007). The study, which gathered data from the early and mid-2000s, also found that having three or more female board members had a significant positive on return on equity (ROE) (Joy et. al, 2007). It further concluded that all three metrics were higher among firms in the top

quartile of female board members, compared to the bottom quartile, in all industries except finance and manufacturing (Joy et. al, 2007). A more recent analysis similarly found that firms with diverse boards among the Fortune 500 see nearly 2% greater return on assets (ROA) than firms with male-only boards, with smaller but still significant premiums on ROA among companies with diverse boards in India and the UK (Lagerberg, 2015). A host of other correlative analyses finds a similar conclusion: on the face of it, diverse boards are associated with improved firm performance across a number of metrics.

Similar relationships have been uncovered by other researchers, with some analyses indicating that companies with more women involved in leadership positions tend to outperform their sector in terms of return on equity, operating result, and stock price growth. According to McKinsey's 2015 Diversity Matters Report, businesses with a greater proportion of women on their boards outperformed rivals. (Hunt et. al, 2015). Specifically, the report found that gender-diverse companies are 15% more likely to outperform their peers (Hunt et. al, 2015). A Deloitte Australia research highlights that inclusive teams outperform their peers by 80% in team-based assessments (Bourke and Dillon, 2018).

Furthermore, a study from the University of Leeds found that having at least one female board member reduced that business's chances of folding by 20%, and having more than one reduced the odds even further (Wilson et. al, 2013). The McKinsey study also showed that companies with three or more women in top management functions score more highly for each organizational criterion than companies with no women at the top (Catalyst Information Center, 2013). This suggests that having one woman may not be enough to influence a board. Another survey showed that women perceive they receive more information when there are more women on the board (Elstad and Ladegard, 2012).

Recognizing that correlations do not equate causation, we then study why diverse boards may score higher on performance measures. In a review of the literature on workplace diversity, Milliken and Martins found that diversity of all sorts, including gender diversity, is generally connected to improved workplace outcomes through the "number of alternatives considered, quality of ideas, degree of cooperation in complex tasks" (Milliken & Martin, 1996, p 416) and other areas. The authors note though that it may also cause workers to "communicate more formally and, perhaps, less frequently with each other than members of less diverse groups" (Milliken & Martin, 1996, p 417). Having women in key positions may add value through women's distinctive set of skills, and creating cultures of inclusion through a diverse workforce (Daehyun and Starks, 2016). Furthermore, boardroom diversity may aid in avoidance of "groupthink," a complacency that may lead to the failure of the board to serve its monitoring role in corporate governance (Coles, et al, 2014, p. 17).

Other studies have suggested that board gender diversity may be causally related with improved compliance with ethical and social standards on one hand (Galbreath, 2011), and that such diversity may also causally enhance corporate social responsibility (CSR) practices (Hyun et al., 2016). Both of these may, in turn, boost firm financial performance.

In light of these findings, we offer suggestions for both law and business for increasing the ranks of women in these positions. When there is a lack of women in the highest corporate ranks of the company in question, a presumption of discrimination should replace the current legal framework in the courts for disparate treatment analysis in Title VII cases of gender discrimination. We further suggest that firms would do well to improve mentoring and networking programs for women to help even the playing field for access at the top of the corporate ladder. Finally, we urge firms to improve the environment for women in the work place—by adopting and sincerely promoting utilization of family friendly policies. Not only would these recommendations be just, they would also likely increase productivity in the corporate world, and help resolve the paradox surrounding the paucity of women in top leadership positions.

Keywords: corporate governance, gender, diversity, women, organizations

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FROM DESTINATION MARKETING TO PLACE MARKETING IN NORTH-WEST ENGLAND

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ABSTRACT

As destinations and places have increasingly found themselves to be in competition to attract tourists, business visitors, new residents, students and inward investment their response has frequently been to set up organisations tasked with the responsibility of promoting the destination to its target market(s). The development of destination marketing organisations (DMOs) is a global phenomenon, which has accelerated in recent decades.

Pike (2008, p.31) defines a destination marketing organisation as 'The organisation responsible for the marketing of an identifiable destination'. As a term 'destination marketing' generally refers to organisations whose purpose it is to promote a destination to tourists. The term 'place marketing' has a similar meaning except that it is usually applied to describe marketing activity designed to attract investment, a skilled workforce and human capital in addition to tourists (Quinn, 2013). Place marketing thus enjoys a wider and less specific brief than destination marketing.

In tandem with international patterns, England, has witnessed significant changes in the governance of its DMOs. This followed the publication of a Government Tourism Policy in 2011 (Department for Culture, Media and Sport 2011 *Government Tourism Policy*). This document, partly as an austerity measure and partly from a claimed philosophical belief, announced that the government policy was now to reduce the public funding of DMOs in favour of private sector funding. The policy document assumed that the private sector was both willing and able to fill this funding gap.

The purpose of the study which is the subject of this extended abstract is to explore how a DMO can engage with its stakeholders in order to operate effectively in circumstances of reduced public financial support. The methodological stance that underpins the study is broadly interpretive in nature (Denzin and Lincoln, 2011). Fifteen extensive semi-structured interviews were conducted with chief executives of DMOs throughout England and chief executives/chairman of key stakeholder organisations relative to one specific DMO, called Marketing Cheshire. Marketing Cheshire's remit is the promotion of a particular sub-region (Cheshire and Warrington) within North-West England. The interviewees were selected through a combination of purposive and snowball sampling. Reliability, validity and generalisability will be achieved in the study through thematic analysis (King & Horrocks. 2010).

At the time that this study began Marketing Cheshire was supported financially by the three local authorities which comprise the Cheshire and Warrington sub-region. However between 2011 and 2014 this DMO suffered a 90% cut in its public sector funding (Heeley, 2015) and only two of the three local authorities now make any direct financial contribution to the DMO. When Marketing Cheshire was funded in large part by the three local authorities its brief was to focus almost entirely on promoting tourism development and this legacy remains in large part despite the changed financial climate.

The research has revealed different organisational responses to the changed business environment across different DMOs within England. For instance, Visit Cornwall has established itself as a community interest company which is entirely independent of local authority funding (visitcornwall.com). Visit Lincoln describes itself as a public-private partnership but it was established by Lincolnshire Chamber of Commerce and Lincoln BIG (Business Improvement Group) which are both businesses in the private sector (visitlincoln.com). Shropshire Tourism has evolved to become an organisation that is self-funded through earned income. It receives no public funding and it claims to be the only DMO in the country in such a position (stem.com). Marketing Cheshire have merged with Cheshire and Warrington LEP (Local Enterprise Partnership) in one of the first such arrangements in England (chesterchronicle.co.uk, 2015).

LEPs are local business led partnerships between the private sector and local authorities that exist to determine local economic priorities and to stimulate growth and job creation. LEPs frequently receive substantial funding from central government to facilitate the work that they do (lepnetwork.net).

The visitor economy is worth around £2.47bn per annum to Cheshire (marketingcheshire.co.uk). The annual Gross Value Added (GVA) of the whole Cheshire and Warrington sub-region is over £20bn per annum (www.871candwep.co.uk) so even though the visitor economy figure excludes Warrington it can be seen that the visitor economy is a relatively small part of the sub-region's total economy. In practice Warrington is the most economically successful of the three local authorities that come under the Cheshire and Warrington LEPs remit (Cox, 2016) but the contribution of its' visitor economy is relatively small.

Marketing Cheshire continues to focus its efforts on promoting tourism within its sub-region and concentrating on that part of the sub-region in which the visitor economy contributes the most. However in so doing it is restricting its scope by devoting most of its efforts towards a relatively small sector in the total economy and by neglecting Warrington at the expense of Cheshire.

The key recommendation to emerge from the research is that the organisation Marketing Cheshire should diversify away from a concentration on tourism and the visitor economy in Cheshire alone largely to the exclusion of Warrington and instead embrace the new opportunities that present as a

result of the reduced financial contribution of the local authorities and their consequent reduction in influence over the DMOs strategy. In short Marketing Cheshire should transition from being a destination marketing organisation into a place marketing agency that serves the whole of the Cheshire and Warrington sub-region. Such a transition could play a vital part in assisting Cheshire and Warrington to achieve its stated aim of becoming a £50 billion per annum economy by 2040.

It is believed that this research will contribute to a greater knowledge and understanding of the challenges currently faced by DMOs in England and elsewhere and that the findings will provide a theoretical basis for improving the effectiveness and efficiency of the change management processes that are required for Marketing Cheshire and other DMOs to confidently face the future.

Keywords: Destination marketing, Place marketing, North-West England, visitor economy

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QUALITY ASSURANCE PROCESS MANAGEMENT IN TRANSNATIONAL EDUCATION SERVICES: A RESEARCH NOTE ON STRATEGIC DIRECTION

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ABSTRACT

INTRODUCTION

The purpose of this research note is to concisely point out the contemporary issues and concerns in quality assurance (QA) process management in transnational higher education, in order to develop a strategic research direction for future research. This theoretical review based paper demonstrates that balancing the external and internal stakeholders' influences on the QA process management in transnational education (TNE) services is a major challenge of the contemporary higher education industry. The review precises a strategic direction towards a research agenda in QA process management in TNE service. Specifically, it accentuates that investigating (a) the TNE exporting institutional QA requirements as internal influence, and (b) the TNE importing country's government and market agencies' QA requirements as external influence, in order to work toward an integrated QA process management framework, would be the steering elements and critical factors of success of TNEs' competency in confronting their QA challenges. These insights may constitute guiding principles and/or directions for researchers in the field, and valuable guidance to education practitioners.

TRANSNATIONAL EDUCATION SERVICES AND THE SIGNIFICANCE OF FURTHER RESEARCH IN QUALITY ASSURANCE PROCESS MANAGEMENT

Quality assurance (QA) process management in higher education was originally introduced to satisfy various needs of onshore education services (Stensaker and Maassen, 2015). Compared to the onshore higher education services (e.g. the onshore universities during the medieval era), the offshore mode of education service or transnational education (TNE) is a relatively new; however rapidly growing practice (Keay et al., 2014), especially in recent decades (Stensaker and Maassen, 2015). Through TNE, universities' *"off-shore capability increases the size of their markets, by making their products accessible to a wider population who cannot afford (or are not inclined) to study on the home campus"* (Healey, 2008, p. 344). Therefore, TNE evolves opportunities, as well as encountering threats to uphold the education exporting institution's reputation (Edwards et al., 2010) in the offshore international markets. Since,

TNE is a newer development in the global higher education sector, generally there are more issues related to the international aspects of this mode of higher education management yet to be understood, compared to the onshore higher education, which could be considered as one of the threats of TNE and its QA management. In support of this view, Stensaker and Maassen (2015) argue that *“international quality assurance of higher education is an emerging area with somewhat chaotic characteristics. There are several initiatives and developments along different routes, with less attention given to overarching design issues and fundamentals of quality assurance”* (p. 37).

“In transnational education (TNE), learners are located in a country different to the one where the awarding institution is based” (Wilkins and Huisman, 2012, p. 627). For example, an education provider of country A offers education services to the students of country B, where the students of country B find it difficult to study in country A. There are several forms of TNE, including direct international branch campuses (DIBC), franchisee, distance learning, articulation, double-degrees, joint degrees and validation of degrees (British Council, 2013; Healey, 2015); however, DIBC is the most popular form of TNEs that contributes to the recent growth of TNEs worldwide (Wilkins and Huisman, 2012). In terms of the QA process management in TNE as an offshore education service, it is common that TNEs lack accountabilities, in comparison to onshore provision of education service (Nix, 2009). On the one hand, TNEs should be accountable to its exporting institution, not only for expanding cross-border operational capabilities to generate additional revenue, but also for the quality of its services. On the other hand, in general, TNEs are accountable to their transnational stakeholders, including students, staff, government, industry bodies and others. The guiding principles in higher education are typically centred on either onshore or offshore issues. As a consequence, the more representative and accurate integrated perspective on the onshore and offshore QA issues is imperfectly understood in the concurrent higher education management (Lim, 2011).

To add to the inherent complexity of the matter, higher education institutions around the globe are confronting increased government pressure to proactively develop and sustain higher education QA process management systems, in parallel to a trend in reduction in government funding of higher education (Eckel, 2008; Shah, 2013; Douglas et al., 2015). Such a state-led tendency to cost reduction and funding policy is *“seen as part of a wider set of changes that have for some time been argued to be leading to the ‘marketisation’ of...higher education in which universities have increasingly had to compete for students”* (Ashwin et al., 2015, p. 610). A perspective also shared and expanded on by Vrontis et al. (2007) and Melanthiou et al. (2017). In terms of marketisation, universities have to deal with various stakeholders in their target markets. For example, in a higher education quality management study, Ewell (2008) *“compared quality (management) to a game with multiple players - states, the federal government, accrediting organizations, media/the market”* (as cited in Blanco-Ramírez and Berger, 2014, p. 96). While Vrontis et al.

(2015) added to this the social media communities as well. Consequently, in order to proactively market/promote higher education in transnational markets, exploring an integrated higher education QA process management framework that concerns the influences of the academic profession of a TNE exporting institution, and the government and market agencies of a TNE importing country to manage and enhance quality, and integrating the QA issues and concerns from such internal and external influences on the overall QA process management arises as critical for TNE's to proactively manage the quality of their education services. At a policy level, and in support of this view, Dill and Beerkens (2013) argue that *"the challenge confronting all nations is to design a policy framework that effectively balances the forces of the state, the market, and the academic profession to assure academic standards in universities"* (p. 341). The influence of academic profession is a higher education provider's internal influence to pursue excellence in knowledge development and dissemination through *"effective peer accountability for the quality of academic programs and the validity of unit-level decision making"* (Dill and Beerkens, 2013, p. 354).

STRATEGIC DIRECTION AND RESEARCH AGENDA

Based on the discussion thus far, it is argued that the contemporary scholarly views underline the importance of balancing the internal and external stakeholders' influences on QA in higher education, as a strategic direction to develop an overarching QA process management framework that integrates the internal and external QA influences and issues to encounter the contemporary QA challenge. There are multidimensional mechanisms and requirements of QA in TNE importing and exporting countries (Lim, 2011), which are usually enforced and/or adopted by academic institutions, market and government agencies. Therefore, following such a strategic direction, a future research agenda in this QA process management knowledge stream needs to be focussed on investigating issues on and/or around the integration propensity of the internal QA issues of a TNE exporting institution, and the QA issues of the market (e.g. media) and government agencies (e.g. accrediting bodies) of a TNE importing country in the overall QA processes of the TNE. This research agenda would be instrumental to explore an overarching TNE QA process management plan to proactively balance such internal and external stakeholders' QA influences. In the context of transnational higher education, there is less research on all-encompassing design issues and fundamentals of QA process management (Stensaker and Maassen, 2015). Consequently, analysing such QA influences from the internal and external stakeholders through these three areas (the internal influence of academic profession, and the external influence of government and market agencies) as all-inclusive influences on TNEs' overall quality management, underlying a single research agenda would be a timely research focus in TNE's QA management process.

Keywords: quality assurance process management, higher education service management, transnational education

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DYNAMIC CAPABILITIES, STRATEGIC MANAGEMENT AND COMPETITIVE ADVANTAGE: A DEBATE AND RESEARCH TREND

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ABSTRACT

INTRODUCTION

Centred on a concise discussion on the extant strategic management literature, this review aims to analyse the recent development in dynamic capabilities theory and competitive advantage, in relation to its existing debate, related to the two dominant logics of this field. The analysis accentuates that the works on dynamic capabilities are trending to recognise a simple or complex routine, associated with the first and second order capabilities and bundle of resources, as a source of dynamic capabilities. From this context, this review provides a unique look to the trend of dynamic capabilities research, with respect to its existing debate.

THE DEBATE

Beside the traditional resource based view's (RBV) valuable, rareness, inimitability and non-substitutability conditions of a certain resource (VRIN) to attain competitive advantage, the term 'dynamic capabilities' in strategic management and competitive advantage research is coined by Teece et. al. in 1990 (Peteraf et. al., 2013). In order to generate competitive advantage, dynamic capabilities constitutes a firm's managerial and organisational (large and complex) processes that is premeditated by the assets' positions, and pursued by the strategic paths followed by the firm (Teece et. al., 1997). Conversely, Eisenhardt and Martin (2000) argued that dynamic capabilities could generate competitive advantages in moderately dynamic markets in very partial form, but unable in the highly dynamic markets. Dynamic capabilities are homogeneous across the firms, because of its commonalities features as well as, because of the equifinality and substitutability of dynamic capabilities as best practices in the moderately dynamic markets, it eradicates the competitive advantage (Eisenhardt and Martin, 2000; Peteraf et. al., 2013; Shams, 2016). As a result, "resources that have the same functionality as a unique or rare resource can achieve the same end" (Peteraf and Bergen, 2003, as cited in Peteraf et. al., 2013, p. 1395), and eventually deteriorates the achieved competitive advantage. To sustain a competitive advantage in moderately dynamic markets, dynamic capabilities need to ensure that it cannot be readily imitable by competitors, as well as it depends on a

firm's internal replicability (Teece et. al., 1997). In contrast, Eisenhardt and Martin (2000) argue that as a 'best practice' from the existing knowledge, dynamic capabilities can be a source of competitive advantage; however it is unable to sustain that advantage. Since, the "equifinality (nature of dynamic capabilities) renders inimitability, and immobility (of capabilities across the firms that is) irrelevant to sustained advantage" (Eisenhardt and Martin, 2000, p. 1110).

A boundary condition is concerned with when and where dynamic capabilities can help to attain and sustain competitive advantage (Peteraf et. al., 2013). In terms of when and where, Teece et. al. (1997) indicated that "in environments (where) of rapid technological change (when)" (p. 509). Eisenhardt and Martin (2000) exemplified that in the moderately dynamic markets, such capabilities could be originated and utilised in a limited manner as a best practice (from the existing knowledge) to generate competitive advantage. However, such an advantage would not be lasted in highly dynamic markets, since, dynamic capabilities are substitutable (thus according to Barney, 1991, it breaks a VRIN condition) and in the highly dynamic markets, it appears as simple but unstable experiential processes that rest on newly created knowledge, specific to a certain situation. Therefore, because of the persistent need to adapt with the rapidly changing conditions/market forces, "dynamic capabilities themselves become difficult to sustain in high-velocity markets" (Eisenhardt and Martin, 2000, p. 1113), which is turned out as the boundary conditions of dynamic capabilities to identify, establish, maintain and enhance competitive advantage in the highly dynamic markets (Eisenhardt and Martin, 2000).

DYNAMIC CAPABILITIES, COMPETITIVE ADVANTAGE AND RESEARCH TREND

"The identification of a particular process (routine) as dynamic capabilities has several implications. It opens up RBV (resource-based view) thinking to a large, substantive body of empirical research that has often been neglected with the paradigm" (Eisenhardt and Martin, 2000, p. 1108). For example, instead of the traditional view of altering the resource base, such as recognising a VRIN resource from a superior performance and then reconfiguring that superiority to a new state of uniqueness (VRIN quality), identifying dynamic capabilities based on their functional relationship to resource manipulation through VRIN attributed product development or alliance formation processes, facilitates further empirical development (Eisenhardt and Martin, 2000). As a result, dynamic capabilities would be able to confront the dilemmas (Priem and Butler, 2001; Williamson, 1999; Mosakowski and McKelvey, 1997) of its obscurity/uncertainty as 'routines to learn routines', perpetual recurrences, and superseded features with lack of empirical avenues. But the key question is centred on the identification of a certain routine or process as dynamic capabilities, which is critical to generate

a competitive advantage and its sustainability. However, it is indistinct to recognise a routine as dynamic capabilities. David Teece, who coined the dynamic capabilities concept in a 1990 working paper, has described in an interview in November 2013 that not yet there is a reliable theory that could identify how to build dynamic capabilities (Kleiner, 2013). Accordingly in the more contemporary literature, scholars posit that “one of the challenges....is explaining the sources of dynamic capabilities” (Arndt et. al., 2014, p. 24). Along with the transformation of market forces and evolution of technology, learning and refining the right capabilities is a key success factors in such a rapidly transmuting business environment (Arndt et. al., 2014).

From this viewpoint, Schilke (2014) discusses on the key question of this field that how do firms build and adapt routines as dynamic capabilities that reflect to the changes? On the one hand, Schilke (2014) proposes a distinction between the first-order dynamic capabilities and second order dynamic capabilities. Here the first order dynamic capabilities are that routine that reconfigures the organisational resource-base, where the second-order dynamic capabilities reconfigure the first-order dynamic capabilities in order to adapt with the changes. On the other hand, in relation to a dynamic bundle of resources and capabilities, the first-order and second-order dynamic capabilities could be analysed in order to exemplify the consequences of second-order dynamic capabilities and how exactly these two types (bundles of first- and second-order) capabilities are intertwined, since, a routine or process, linked with a dynamic bundle of resources encompasses higher stability, compared to a simple routine or process (Peteraf et. al., 2013). The empirical findings show that since there is a negative but consequential relationship between these two types of capabilities (first-order and second order), they appear as equally crucial in terms of affecting the performance outcome (Schilke, 2014). As a result, the future works on dynamic capabilities are trending to recognise a routine or process, associated with the first and second order capabilities and bundle of resources, as a source of dynamic capabilities.

Keywords: dynamic capabilities, competitive advantage, dynamic capabilities debate, resource based view, sustained competitive advantage, strategy, strategic management.

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STAKEHOLDER CAUSAL SCOPE: A CROSS-FUNCTIONAL MANAGEMENT MODEL

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ABSTRACT

Stakeholder relationship constructs (SRC) (Agariya & Singh, 2011) are typically originated and nurtured through the cause and consequence of stakeholder relationships and interactions (e.g. service encounter), as a stakeholder causal scope (SCS) to recognise stakeholders' perceptions about a company/industry, in order to serve the stakeholders in a way that they expect and accept (Shams, 2016a).

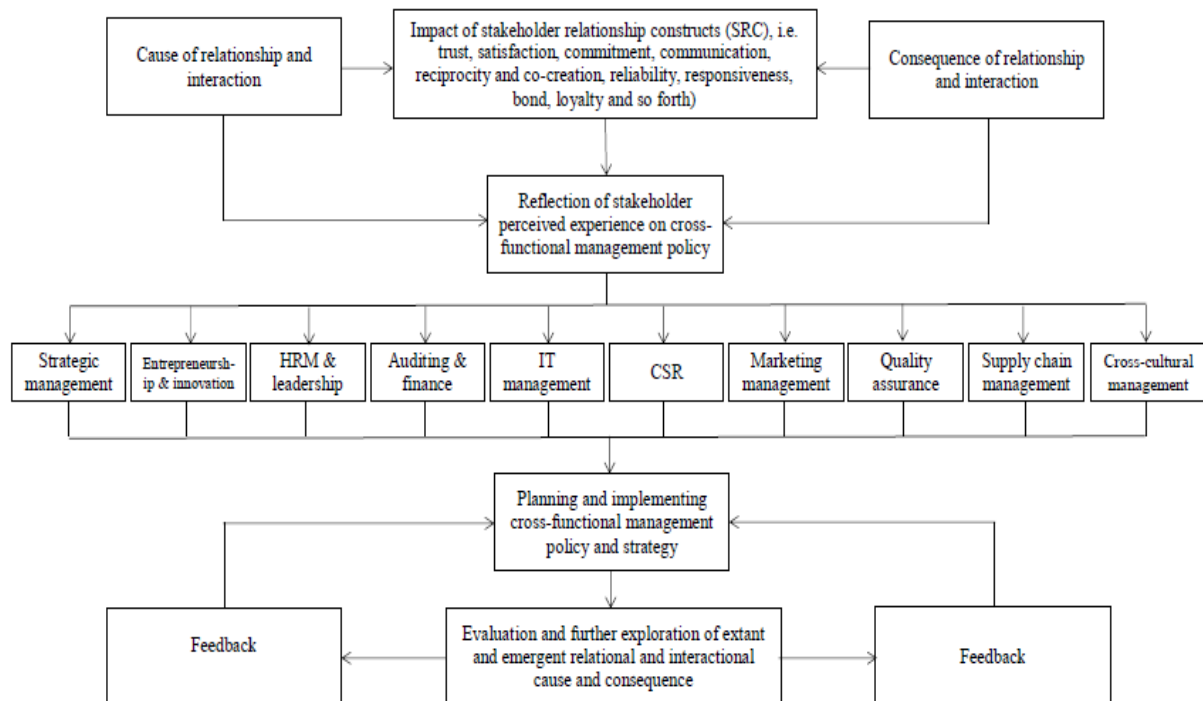


Figure-1: SCS-centred cross-functional management.

SRCs have implications to nurture business relationships (Gummesson, 2002). Since SRCs' are derived from SCS; analysing SCS from any cross-functional managerial setting appears as instrumental to understand the internal and external stakeholders' perceived experience, in order to plan and manage the policy and strategy of diverse management functions to meet the stakeholders' mutually beneficial goals. Figure-1 depicts this recurrent cross-functional management process, centred on ten management functions, which is explained here, based on two management functions (strategic management and marketing).

In order to sustain a competitive advantage, the resource-based view (RBV) of strategic management argues that a “valuable, rare, inimitable and non-substitutable (VRIN)” competence of resources is fundamental for the resources that are used to develop the competitive advantage (Barney, 1991). As an extension of the RBV, the dynamic capabilities (DCs) theory argues that DCs are strategic and operational processes, strategic positioning and repositioning of resources, and path dependencies (strategic direction) to nurture a “firm’s ability to integrate, build, and reconfigure internal and external competences to...achieve new and innovative forms of competitive advantage” (Leonard-Barton, 1992, as cited in Teece, 1997, p. 516). However, the critics argue that because of the commonalities and substitutability features, DCs and subsequent competitive advantage are unable to survive through the VRIN test (Eisenhardt and Martin, 2000; Peteraf, 2013).

The recent development of this field suggests that recognising exceptional conditions would be instrumental to retrieve the DCs’ VRIN competencies. Such exceptional conditions (e.g. the convenient location of a next door shop, in comparison to a supermarket) could be recognised from a firm’s and its allied stakeholders’ overall learning experience about the market competition (Peteraf et al., 2013). From this viewpoint, the relationship marketing (RM) concept would have implications to recognise such exceptional conditions by analysing SCSs, related to a firm and its stakeholders’ learning experience for sustaining competitive advantage, even in a market/industry that encounters rapid changes in competition (Shams, 2016b). In support of this view, Little and Marandi (2003) argue that:

RM service providers gain a better knowledge of their client’s requirements and needs. This knowledge (a potential exceptional condition, with respect to the target stakeholders’ perceptions/needs) can then be combined with social rapport built over a number of service encounters to tailor and customise the service to client’s specifications. (p. 31)

In one hand, the rapid changes in the competitive forces (e.g. legislation) in the global education industries (GEI) gloomily impact on the competitiveness of various international education destinations (Shams, 2016b). On the other hand, Asian students consider “proximity”, as one of their decision making factors to choose their international education destination (Phang, 2013; Singh et al., 2013). A perception/need of an Australian international student is recognised as “one of the reasons influencing my decision to study in Australia is its proximity to Singapore” (Tan, 2014, np). In response to such rapid changes in competitive forces, if Australia brand their valuable education, based on “proximity” as an exceptional condition related to the Asian students’ non-academic need (perception), then they would be able to sustainably brand their international education as “rare, inimitable and non-substitutable” for their key competitors (i.e. the UK and the North American

countries) from the “proximity” perspective to recruit Asian students, as Asia, particularly the South-East Asia as the major market in the GEI (UNESCO, 2014; International Students Australia, 2015) is naturally located closer to Australia. Consequently, once all other competitive forces of all competitive destinations will appear as satisfactory to the same extent to an Asian student, in such cases, the Australian international education industry (IEI) will be able to sustain their competitive advantage to that student.

Following the discussion thus far, in support of Figure-1, it can be argued that in terms of SCS, the cause of the Asian students here is “proximity” and the consequence of their relationships and interactions with the Australian IEI is their perceived academic and non-academic experience. Therefore, the policy and strategy for the Australian IEI’s cross-functional management, related to marketing (i.e. branding) and strategic management (i.e. sustainability) can proactively be managed, centred on the ongoing insights that would be developed by analysing SCS and stakeholders’ perceived experience, as a recurrent process. Further empirical insights on more cross-functional management areas, which are depicted in Figure-1 can be developed to generalise this model across diverse socio-economic perspectives, industries and markets.

Keywords: stakeholder, cross-functional, management model, stakeholder causal scope.

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THE IMPACT OF AGEING ON BEING A FAN OF BASKETBALL CLUB

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ABSTRACT

INTRODUCTION

The state and behaviour of being a fan of a sport club may change over the years. Fans have become older over the years and are going through multidimensional changes (Kanfer & Ackerman, 2004). These include biological, psychological and social processes (Schalk et al., 2010) that are changing their behaviour. Life expectancy is rising and birth rates are falling, leading to the increase rate of the proportion of old people in the population (Ortman, Velkoff, & Hogan, 2014). Moreover, as people grow older in the middle class populations in developed countries, they spend more time in leisure activities (Agahi & Parker, 2005; Lera-López, Ollo-López, & Rapún-Gárate, 2012). Many of these older people have more available time and improved economic and physical standing (Adams, Leibbrandt, & Moon, 2011). These changes made the growing ageing population an important target market to understand and target to (Park, Suh, & Pedersen, 2016; Williams & Drolet, 2005). The current study tests those changes in the behaviour of basketball fans.

HYPOTHESES

The *selective optimisation with compensation* model (Baltes & Baltes, 1990) suggests that, social cognitive and functional reserves are often diminished as people age. As they grow older, people select activities that optimize their diminishing abilities. In the context of sports, being an engaged sports fan in older age reflects such optimizing selection. It is an activity that does not requires much effort and provides much enjoyment. Older sport fans have lower levels of aggression and lower acceptance of aggression (Toder-Alon, Icekson & Shuv-Ami, 2018). Fans identification with a sport team increases their social connections with others which improves their well-being (Wann 2006). Such identification may also reduce loneliness and increase positive emotions and social life satisfaction (Toepoel, 2013; Wann, 2006). Moreover, viewing and experiencing sports events led to the improvement of fans' feelings of well-being (Kim, Kim, & Kim, 2016). Combining the understanding provided by *selective optimisation with compensation* model for the ageing population with the positive influence of being a sport fan on people led to the following hypotheses.

H1: Older fans are more likely to watch more games of their sport team than younger fans.

H2: As the fan's age increases, fandom is more likely to become stronger.

H3: Fanship for sport clubs will become stronger as age increases.

H4: As the fans age increases, the Sport Spectator Identity will be stronger.

METHODOLOGY

The empirical part of the research stems from an internet panel survey of 740 Israeli football and basketball fans. Participants ages ranged between 19 to 83 with a mean age of 43.3 (sd = 15.6), 58% were males and 54% had an academic education and 57% are married with children.

Age is the independent variable of the current study. Age was measured as a date of birth and was categorized into six categories; Up to 24 of age (n=96), 25-34 (n=216), 35-44 (n=162), 45-54 (n=118), 55-64 (n=119) and 65 and over (n=99). *Watching Games* was measured by the question: "In the last two months and out of the last 5 games, how many games did you watch; (a) on TV ____ and (b) at the arena ____?"

Fanship was measured as a degree of being a fan to a basketball team on 1-10 scale, where 1 indicates "I am a *casual* fan" and 10 "a *diehard* fan". The measure of *Fandom* here uses Wann's (2002) five item scale that was found reliable with Cronbach's $\alpha > .93$. *Sport Spectator Identity* was measured using the seven-item measure from Wan and Branscombe (1993) with Cronbach's $> .91$.

The current research tests the hypotheses using crosstabs with Chi-Square test of significance. Thus, all dependent variables were collapsed into three levels. In Watching games 1-2 games was "Low", 3 was "Moderate" and 4-5 was "High". The answers for the Fanship scale were ranged from 1 to 10 were collapsed into 1.00-3.99 was "Low", 4.00-7.99 was "Moderate" and 8.00-10.00 was "High". The Fandom and Sport Spectator Identity is a scale ranging from 1 to 8, 1.00-3.00 and it was collapsed into "Low", 3.01-5.99 was "Moderate" and 6.00-8.00 was "High".

RESULTS

As hypothesized (H1), older fans are significantly (Chi-Square = 20.154, Significance (2-sided) = 0.028) more likely to watch more games of their sport team than younger fans. Older Fans of basketball (19.4% are high) watch games three times more often than young fans (7.5% are high). As expected, as the fans age increases, fandom is significantly (Chi-Square = 30.650, Significance (2-sided) = 0.001) more likely to become stronger (from 11.9% to 30.0% that are high), from 65 years old fandom decreases (only 19.4% are high).

The Crosstab analysis shows that fanship become inanimately (Chi-Square = 60.615, Significance (2-sided) = 0.000) stronger as age increases. Only 33.3% of fans up to 24 years old were found to be strong basketball fans in comparison to 56.1% of 65+ years of age.

The fourth hypothesis (H4) is dealing with the degree a fan identifies with his or her team. Although significant (Chi-Square = 25.799, Significance (2-sided) = 0.004), there is no clear pattern. It seems that 45-64 years of age have a stronger identity to their basketball team (31.3%-25.5%) than the rest of the age groups (15.3%-18.2%).

CONCLUSIONS AND IMPLICATIONS

The findings of the current study showed that older fans are more likely to watch more basketball games than younger fans. Older people became greater fans of basketball (fandom), greater fans of their basketball team (fanship) and identified more with their basketball team. Thus, basketball teams should examine how strong the fans' relationship is with their club since the degree of such relationships may affect their income in the long run. Such decreases, as some of the findings here suggested may lead to less willingness of fans to watch the team games and buy their merchandise and may lead to fewer royalties for television rights. Thus, sport clubs should try to avoid such consequences by monitoring fans relationship with their club. Thus, sport clubs may develop special relationship with their older fans. The older fans are also more likely to influence the next generation (their children) and the generation after (their grandchildren) of fans for their sport team. Such marketing activities may include for example; family season tickets, branded merchandises that the older fan could buy for his or her grandchildren, special events especially during family holidays and the club may also give a retirement present etc.

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THE EMOTIONAL INTELLIGENT MANAGER: A CULTURAL PERSPECTIVE FROM THE HOSPITALITY AND TOURISM INDUSTRY

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ABSTRACT

Extant literature on emotions highlights their significant role at a personal, and organizational level, such as on employee efficiency (Brotheridge and Lee, 2008) and in decision-making (King and Gardner, 2006). Particularly, “Emotional Intelligent” (EI or EQ) leaders use emotions to improve their decision making and inspire co-operation (Gardner and Stough, 2002). Indeed, *EI* has gained a great deal of attention over the last decades (Shao et al., 2015; Tang et al., 2010; Melita Prati et al., 2003; Nikolaou and Tsaousis, 2002); Also, within the hospitality and tourism academia (Langborn, 2004).

Even so, the convey and usage of emotions within a social, such as workplace context, is shaped by differing factors, such as cultural norms. For instance, Trompenaars and Wooliams (2003) note that members of particular cultures may make great effort to control their emotions, hence not enabling overt displays of their inner states. Furthermore, it conceivably be argued whether people coming from certain societies, would have preference for an Emotional Intelligent leader; That is, a person who might be driven by emotional dynamics to lead employees and manage organizational processes. In fact, little is known about the relationship between *EI* and leadership across cultures (Tang et al., 2010). Furthermore, an investigation of the extent of which employees prefer to be managed/led by an *EI* manager, remains noticeable lacking. Hence, the primary aim of this research is to fill this gap in the literature. At the same time, it offers useful guidelines to practitioners within an industry highly governed by human transactions and people from differing cultural backgrounds. Besides, the need to comprehend emotions within a cross-cultural context has become obvious and increasingly acknowledged, hence calls for further insights (Chentsova-Dutton and Lyons 2016; Tan et al. 2005;).

A qualitative study was carried out which targeted people who worked in the hospitality and/or tourism industry, to explore whether preference is given to an EI manager. Both, hospitality and tourism industries are well acknowledged for their idiosyncratic circumstances they create for employees and managers; Such as, intense and under pressure human transactions. Two clusters of seemingly differing cultural members were purposely chosen to address the primary scope of this study. One cluster of interviewees had a Cypriot cultural background (In this study referred to as: Cluster 1), whereas another cluster, had a Russian cultural background (In this study referred to as:

Cluster 2). The study was carried out in Cyprus, a place with a matured hospitality industry, encompassing of employees and managers coming from differing cultural backgrounds. Two expert research members carried out the interviews; Interviewees were selected on the basis that they would have been able and willing to answer specific research questions, hence meet the objectives of the study (Onwuegbuzie & Collins, 2007). "Grand" questions guiding this study were: "Did you have a manager who met the criteria of an Emotionally Intelligent manager?", "Do you believe that an Emotionally Intelligent manager can help a team succeed?", "Would you like to have an Emotional Intelligent person leading you?" Each informal interview lasted on an average half an hour. Experienced researchers encouraged informants to share their personal experiences and give specific examples. The place of the interview was commonly agreed with each interviewee. The selection of informants furthermore, was based on certain criteria; More specifically, a prerequisite was that they had to have certain years of experience within the hospitality and/or the tourism industry. This would have enabled the interviewees to express opinions and share such experiences which would have involved the management from differing types of managers.

Preliminary findings and the analysis of responses coming from approximately thirty interviews yielded so far the following interesting outcomes: Firstly, quotes betray that members of cluster 1 find that having an *EI* leader is more important for them, compared to Cluster 2. Even so, a rather limitation of this study is that no gender or age differences were pinpointed. Nevertheless, cluster 1 seems to believe that *EQ* has been very helpful in achieving high results. Yet although the majority of informants from cluster 2 believe that *EQ* is an important characteristic for a leader, they prefer a leader who is able to "show the way"- that is, a more practical one. Likewise, it seems that informants from both clusters would be happy to have an *EI* leader in general, but cluster 1 informants find it more vital, compared to cluster 2 informants. Hence, research findings suggest the reconsideration of the important role of *EI* managers, considering the fact that managers which possess such abilities may not necessarily be valued/preferred by members of certain cultures. Managerial implications can therefore be imposed. For instance, managers must not give the impression that their decisions are solely based on emotional criteria. Additionally, over-usage of terms involving "emotions" by leaders, may possibly yield antipathetic positioning towards them; such as from those that do not value the incorporation of emotions in managerial processes and decision making procedures. The hospitality and tourism industry can be highly benefited when taking into consideration such findings. It is besides an industry that strives to channel positive emotions to tourists. Yet, findings from this study reveal that certain cultures find *EI* managers more effective while other cultures, not necessarily. As a result, employees such as the ones that in this study were grouped in cluster 1- would find it more beneficial to be managed by an *EI*. Contrary,

employees such as the ones falling in cluster 2 of this study would find having such a leader less beneficial. In that respect, recruiting a person to lead a team coming from differing cultural backgrounds, should take this implication into consideration. Cultural elements within a hotel or a tourism organisation will lead the way in regards to how they need to be managed in order for them to be more effective in the way they serve the tourists. Since this research is adding to the literature gap on the significance of *EI* in leadership across cultures, it can be utilised to explore the opportunities that proper management may offer to the hospitality and tourism industry. At the same time, it encourages further research to appreciate further the role of *EI* within a cross-cultural context. Besides, overusing EQ attributes may lead to negative results in employees coming from certain cultures. The industry may re-consider their management decisions and include the cultural element when implementing certain leadership approaches. This will positively contribute to the industry and benefit its stakeholders. Indeed, further research is encouraged to identify and gain deeper insights of the *EI* management role within a workplace with cultural differences. The significance of this study nevertheless is that it challenges hitherto praises for having *EI* leaders. Even so, a future research agenda may be channelled towards the further examination of the EQ concept from a cultural perspective (i.e. from members of different cultures). Also, further research is suggested to investigate which specific attributes of *EI* managers are more, or less appreciated by employees coming from differing cultural backgrounds.

Keywords: Emotional intelligence, leadership, emotions, empathy

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THE ROLE OF COACHING IN ORGANIZATIONAL CULTURE: A COMPARATIVE APPROACH

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ABSTRACT

This paper presents a comparative analysis of the training, mentoring and coaching processes in order to highlight the common points and different areas of their actions as well as the differentiated advantages. In a public or private organization, training, mentoring or coaching programs can be effective means of attracting and retaining talented employees.

The paper analyzes the influence of coaching and mentoring in an organization, based on Geert Hofstede's cultural variables: distance from power, individualism versus collectivism, masculinity versus femininity, uncertainty avoidance index, short and long term orientation.

INTRODUCTION

Organizational culture is defined by Geert Hofstede in 1991, as "the collective programming of the mind which distinguishes the members of one organization from another". Culture is a characteristic of the organization, but it is manifested in and measured from the verbal and/or nonverbal behavior of individuals that belong to an organization (Hofstede, 2003).

LEARNING ORGANIZATION

Studies in the field of human resources have revealed that the most important resource in a company is the talented employees (Govaerts et al., 2011), people with intellectual and emotional intelligence (Goleman et al., 2013), employees that master the new technologies and are able to adapt to organizational changes (Yukl, 2008).

The organization that learns is that one able to adopt and adapt at its own culture, the notions of development, training and improvement (Garvin et al. 2008; Dodgson, 1993). These organizations are led by managers/leaders that have as philosophy to lead while they train their employees (Manikutty, 2005). An effective leadership that supports organizational development is based on coaching, mentoring and training, especially in today's economy that focuses on types of intelligences (Silver et al., 2009 & Nita, 2017).

When we talk about adult education (andragogy) we take into account that adults are motivated to learn when they find a rational argument, so it is important to present them the purpose of learning

(Kessels and Poell, 2004). In the context of an organization, education is associated with organizational culture, mission and vision (Bass, 1990). From an organizational climate point of view, a tough learning environment based on tests does not develop skills, and does not encourage the employee to take risks. "Leaders are much more powerful when learning than when they teach" (Kanter, 2004). Training is defined as the action of helping someone learn. It is a transfer of information between a tutor or a mentor and another person (Rothwell et al. 2009). Good leaders are the ones who offer feedback, suggestions, inspire, motivate and encourage. The purpose of the training is not only to learn but to support the progress of the person who is trained, to achieve better performance and greater efficiency (Rummler and Brache, 2012).

COMPARATIVE APPROACH: COACHING VERSUS MENTORING INSIDE THE ORGANIZATION

In literature, some authors have argued that mentoring and coaching are describing the same activity (D'Abate et al., 2003). Coaching and mentoring are not reserved for senior managers and company directors only, but are available to all employees as a professional or personal development tool (Wasylyshyn, 2003).

Based on mentoring model of Socrates can be noticed that truly effective training is done when mentor's questions evoke introspection. Fed by the curiosity of introspection, the protégé will eventually cultivate wisdom (Pekarsky, 1994).

In the case of mentoring it is very important the example that the mentor offers for the protégé. The relationship between them must be based on trust, respect and partnership. Making mistakes is seen as a necessary step in the training and development process (Armstrong et al., 2002).

In the training process, the mentor observe his protégés to see which of the four needs (success, recognition, power, control) are fundamental for them and influence their behavior:

- those who give high priority to success appreciate more performance feedback and less personal feedback, are motivated by the professional respect of their bosses.
- those who prioritize the need for recognition have a tendency to avoid interpersonal conflicts, and appreciate their personal feedback, especially from those with authority in the organization.
- people driven by the need of power, demand respect and loyalty from others, and need confirmation of their own value.
- people who have a need for control often have a tendency to lose themselves in details that never value much the essence. (Marquardt and Loan, 2006).

Coaching in the organization has the role of rapidly improving the behavior, skills and performance of an employee at work. The main coaching approaches within organizations are coaching expertise (employ professional coaches) and coaching culture (train leaders and managers to coach) (Yu, 2007).

Unlike mentoring that encourages and inspires the employee to find their own ways of development, self-training and overcoming, coaching is directed to a clear goal. Through coaching, the manager guides the employee to increase their level of knowledge, to change their behavior if necessary, to carry out work tasks at the level or the standard requested (Burdett, 1998).

Both mentoring and coaching in the organization are aimed at facilitating the process of learning and developing people. In terms of human resource management plan, coaching or mentoring that may be included in personal development plan, drawn from analyzes of performance / employee evaluation (Armstrong, 2003).

Differentiated aspects		Common points
Mentoring	Coaching	
<ul style="list-style-type: none"> - relationship oriented - long term - development driven - transfer of knowledge and experience 	<ul style="list-style-type: none"> - task oriented - short term - performance driven - specific and skills focused 	<ul style="list-style-type: none"> - facilitation methods - use questioning techniques - observe, active listening - encourage personal growth - encourage to continually improve competencies - concerned with the practical issues of setting goals and achieving results within specific time-scales

Table 1. *Common points and differentiated aspects for coaching and mentoring, personal approach on Brockbank (2006) and Chubin and DePass (2017)*

As highlighted in the table above, time frame for coaching is short-term performance, whereas traditional mentoring tends to relate to long-term development. Traditional mentoring is more concerned with modeling, counseling, supporting, advocating, introducing, and sheltering as exhibited behaviors, and coaching is more concerned with goal setting, providing practical application, providing feedback, and teaching.

ACTIVE LISTENING IN MENTORING AND COACHING AS AN ACQUIRED COMPETENCE

Knowing that listening is important in any communication and being a good listener are two different subjects.

Active listening is an aptitude that can develop and is essential in the training process. It refers to asking questions, paraphrasing (reflect the direction), summary (synthesis in order to check what was

understood), extension (enrichment or development agreement) and use nonverbal language (through nonverbal behavior can create a positive learning environment). (Orth et al., 1987)

According to Gallup analytics, only 14% of employees strongly agree that the performance reviews they receive from their manager or leader inspire them to improve at the workplace. In the table below it can be observed how workplace expectation of employees, have changed in nowadays economy.

EMERGING WORKPLACE EXPECTATIONS ARE SHIFTING WHAT FUTURE WORKPLACES WANT AND NEED	
THE PAST	OUR FUTURE
My Paycheck	My Purpose
My Satisfaction	My Development
My Boss	My Coach
My Annual Review	My Ongoing Conversations
My Weaknesses	My Strengths
My Job	My Life

Table 2. *From traditional performance management practices towards the performance development, according to Gallup 2017*

In order to meet workplace expectations, managers must learn to apply coaching culture to the organization and develop talent into strength. We keep in mind that economy is a constant engine of change (Costea, 2009). That means talent employees are not looking for a boss; they want a coach to inspire them and support them with personal development.

CONCLUSIONS

The greatest mentors that have ever existed in history, such as Jesus, Buddha, Mohammed, Confucius, Lao-tse, whether we speak about religion, philosophy or any other field, they have influenced others by their ability to stimulate the mind of their disciples.

Assuming proactively the roles of mentor and coach by the top, middle or low management within the organization may lead to sustainable development of an organizational culture, based on a modern approach of the relationship between managers and employees, with multiple benefits in terms of stress reduction in the organization, increasing cohesion of the team, an increased performance management and will create an organizational climate that will allow personal development.

Keywords: coaching, organizational culture, management, mentoring, training programs, business administration, human resources.

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FRAMEWORK FOR SUCCESS OF BUSINESS CONSUMER BEHAVIOUR: A SYSTEMATIC LITERATURE REVIEW APPROACH

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ABSTRACT

The main objective of this study is to employ a systematic literature approach to identify and analyse the core constructs and their relationships proposed in past studies to explain business consumer behaviour (B2B). We also intend to develop a framework of such business consumer behaviour (B2B). The systematic literature followed several criteria of quality, scope of study and use ranking of quality of the journals where studies are published. In this vein, we extracted 273 articles to analyse the date evolution, date and origin of the publication and the content of the titles was studied in depth. Finally, we suggest future avenues of research.

INTRODUCTION

The value of intercompany transactions is much higher than the transaction value between companies and consumers. For example, in 2015 accordingly to the US Department of Commerce, for each USD made in retail, 2,7 USD was spent on manufacturing and wholesale, both online and offline.

The definition of products for business consumption may not be clear. Mudambi et al. (1997), developed a definition that will be used in this research: “products used in manufacturing that are not marketed to the general consuming public”. For the author this definition is very general and involves the acquisition of all goods or services in a company, already anticipating the adoption of the term Business to Business (B2B or BTB), later used extensively in the literature.

The dominant perspective may suggest that business buyers, unlike individual buyers, tend to base their purchases on objective criteria such as price, product quality or complementary services. It will be essential to identify and systematize the scientific production focusing on the description of the main constructs associated with the behaviour of the business or B2B consumer.

The purpose of this study is to develop an approach which will enable the achievement of the following objectives: (i) develop a systematic literature search; (ii) Identify the main factors influencing the behaviour of the business consumer; (iii) contribute to a framework of business consumer behaviour.

METHODOLOGY

When selecting the keywords, our search focused on the study of variables which endeavour to explain the behaviour of consumers in both versions “Behavior” and “Behaviour”. As we are dealing with transactions involving organizations, it is important to integrate the different decision makers, the consumers and the buyers. Research was also restricted to the relationships between companies, so as not to include the specific references made to the consumer in the broad sense of the word. Therefore, the results of the research were restricted to definitions commonly found in the literature: “industrial”, B2B, Business-to-Business, b-to-b and BTB.

The Web of Science database was used to search for relevant articles in December 2017 and updated on the 13th of February 2018. The search keywords were written in the following Boolean expression TS=((“consumer” or “buyer”) and “behavio*r”) and (“b2b” or “business to business” or “business-to-business” or “btb” or “b-t-b” or “industrial” or “b-b”)).

The results were limited to articles and reviews, as well as to the categories mainly related to economics and business management: Business; Management; Economics; Operational and Research Management; Business Finance.

Scimago Journal & County Rank was used to ensure the quality of the articles and the journals classified as Q1/Q2 in December 2017 were analysed.

When selecting the titles, we tried to identify those that suggested a high probability of finding constructs that explain the behaviour of the business consumer. The content analysis of the titles was made in two approaches: identification of titles which contain terms related to digital transformation, such as internet, e-commerce, social media or similar terms; (ii) word counting ranking in specific time frames using the function “Word Frequency Counter” of Writewords (<http://www.writewords.org.uk>)

SYSTEMATIC LITERATURE REVIEW OUTCOME

The search resulted in 867 articles of which 414 remained after successive filters were applied. Title reading allowed the identification of 273 articles as shown in table 1.

Table 1 - The aggregate outcome of the search strategy

Step	Articles remained
Advanced search	867
Articles and Reviews	727
WoS selected categories	450
Quality list (SCIMAGO)	414
Title reading	273

Source: Authors' elaboration

The analysis of the year of publication and origin of the journals of the aforementioned articles allowed us to identify three findings. Firstly, the research is relatively recent with 81% of scientific

output having been published in the year 2000 or later. Secondly, it shows a growth trend, as can be seen in table 2. It should be noted that the scientific production in the period of 2017-2012 was 2.7 times higher than in the period of 2002-1998.

Table 2 - Publication date evolution

Timeframe	# Articles
2017-2013	84
2012-2008	69
2007-2003	52
2002-1998	31
1997-1993	23
Before 1993	13

Source: Authors' elaboration

Thirdly, scientific production is concentrated in four B2B specialized journals, which represent 53,5% of the articles. It is also vaguely present in more generalist marketing journals, representing 18,3% (Table 3). The remaining forty-seven journals account for 28,2% of the total articles.

Table 3 - Main journals (1993-2018*)

Journal name	# Articles	%
Industrial Marketing Management	78	28,6%
Journal Of Business Research	29	10,6%
Journal Of Business & Industrial Marketing	24	8,8%
Journal Of Business-To-Business Marketing	15	5,5%
Journal Of Marketing	10	3,7%
Journal Of The Academy Of Marketing	10	3,7%
European Journal Of Marketing	10	3,7%
Journal Of Marketing Research	6	2,2%
Marketing Science	5	1,8%
Journal Of International Marketing	5	1,8%
Marketing Science	4	1,5%
Other (<3 Articles; 47 Journals)	77	28,2%
Total	273	100,0%

(*) - Until February, 13

Source: Authors' elaboration

The content analysis of the article titles permits us to draw two conclusions. On the one hand, it indicates that the confirmed growing interest in the topic is not directly related to the digitalisation of the economy, in fact only 5% of the titles referred to digital transformation.

On the other hand, in the ranking analysis of the Top 5 words used in different time frames shown on table 4, a growing importance of the word relationship can be seen, along with the decreasing use of the term industrial, which may have been replaced by the term business, used in a broader sense. It should be noted that relationship was the word mostly used in the period 2017-2013,

Table 4 - Evolution of the ranking of the top 5 words in article titles

Top 5 words	1971-1997	2002-1998	2007-2003	2012-2008	2017-2013
Relationship (s)	-	2	2	3	1
Business	4	1	1	1	2
buyer (s)	3	3	3	4	3
customer (s)	-	-	4	-	4
supplier	-	3	-	-	5
industrial	1	4	5	-	-
behavior	2	4	-	5	-
market (s)	5	3	5	2	-
Study	-	5	-	-	-

Source: Authors' elaboration

CONCLUSIONS AND IMPLICATIONS

These findings reveal that the scientific community has a growing interest in this topic. However, despite the importance of B2B transactions across the distribution chains, publication is somehow still confined to journals specialized in B2B.

On the other hand, there is recognition of the importance of the relationship between buyer and seller as a performance indicator and a subordination of the topics related to digitisation. A more extensive analysis will not only allow us to prove these findings, but it will also identify the constructs involved. In the future we suggest that researchers develop more studies on the dyadic relationship between enterprises and their business customers. The way relationships are established and maintained are not well-understood. The drivers to engage stakeholders to the Business organizations are still in the early stage. Finally, the quality of the B-to-B relationships is still not under-developed.

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THE IMPACT OF THE SUPERVISORY ACTIVITY OF INSPECTORS FOR THE ADOPTION OF THE SHIELD METHODOLOGY ON THE WORKPLACE SAFETY AND CORPORATE PRODUCTIVITY

Spanò, Isabella

The abstract is written in a personal capacity and does not bind the Administration to which the author belongs.

ABSTRACT

PURPOSE

This research is the continuation and deepening of the previous study aimed at disseminating the SHIELD (Social Health Indicators for Economic Labor Decisions) methodology (Golzio, 2011; 2014). In particular, the competitiveness of enterprises, which, as already pointed out (Spanò, 2014), benefits from the application of corporate programs to promote health and safety in the workplace (Lowe, 2003), can be stimulated by the intervention of labour inspectors and/or of health and safety inspectors that arise in an advisory role for prevention rather than a role for sanctions, without moreover abandoning the latter (Frigeri, 2007; Deidda, 2007).

Understanding the impact that a supervisory activity suitably complemented by that of advice on the prevention in the field of health and safety at work can have on the actual improvement in the company wellbeing and on the decrease of risks, and therefore also, in the positive sense, on productivity, appears crucial, even in light of the fact that there are few scientific studies on this subject (Farina, 2014).

The research, therefore, examines the scientific evidence on the topic of inspection effectiveness in improving the health of workers, declining the results obtained in this sense by the different types of inspections (Mischke *et al.*, 2013); presents the SHIELD methodology; proposes and illustrates the software implemented, at a stage preliminary to the research, as application of SHIELD, on the basis of programs for companies such as Co&Si (Costs and Safety, http://www.inail.it/internet/salastampa/SalastampaContent/PeriGiornalisti/news/p/dettaglioNews/index.html?wlpnewPage_contentDataFile=N865677393&_windowLabel=newPage) and Infor.MO (<http://www.ispesl.it/getinf/informo>) of the Italian INAIL (Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro/National Institute for the Insurance against Accidents at Work), OiRA (<http://www.oiraproject.eu>), web platform of the EU-OSHA (European Agency for Safety and Health at Work), Safety Pays (<https://www.osha.gov/dcsp/smallbusiness/safetypays>) of the United States OSHA (Occupational Safety & Health Administration), and others; finally analyzes the medium-term results of the experimental advice provided by inspectors, properly trained, to a random sample of small and medium-sized enterprises, not so much on the mere acceptance of the SHIELD

methodology, already tested by submitting Delphi questionnaire (Spanò, 2014), but on the actual adoption of SHIELD by using the dedicated software.

DESIGN/METHODOLOGY/APPROACH

The premise of the research is dedicated to the description and to the remarks of the current evidences in the literature on the impact of different types of inspections and of supervisory tools regarding health and safety at work in the reduction of occupational accidents and diseases.

After having reviewed the main software developed for the improvement of the corporate health and safety and for the measurement of the safety costs, the research continues, in the central part, describing the software built to facilitate the application of the SHIELD methodology, based on the accounting reclassification of costs incurred by the company, in terms of health and safety in the workplace, between prevention costs and non-prevention ones.

In the third part the research examines the results obtained in the medium term in a sample of small and medium-sized enterprises selected from those favorable to the use of the SHIELD methodology, after a team of inspectors, as consultancy, oversaw a thorough knowledge and taught the use of the developed IT application.

FINDINGS

The research confirms the business improvements obtained through the use of the SHIELD methodology by means of the “ad hoc” developed software, from the point of view of the workers wellbeing as much as from the microeconomic one.

ORIGINALITY/VALUE

The originality of this research consists either in the development of a specific software for the use of the SHIELD methodology, than in the measurement, in the medium term, of the impact of the advisory activity of inspectors for various reasons involved in the preventive healthcare and in the implementation of workplace safety, with specific reference to the adoption of the SHIELD methodology in firms by the use of the above mentioned specially developed software, in terms of reducing accidents and occupational diseases as well as in terms of the productivity increase and, more generally, of the improvement in the corporate economic asset.

Keywords: health and safety promotion, non-prevention corporate costs, SHIELD, supervisory activity, productivity

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DEMAND, MARKETS AND INNOVATION FOR INDIAN MSMES

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ABSTRACT

The Small and Medium enterprises today constitute a very important segment of the Indian economy. The development of this sector came about primarily due to the vision of Government policies framed right after independence which stressed to develop small enterprises. MSMEs sector has emerged as a dynamic and vibrant sector of the economy. As per the fourth census of MSMEs report published in 2012, the total numbers of MSMEs in India are 36 million employing over 80 million people. It is the second largest employer after agriculture accounting for 72% services and 28% manufacturing jobs. It also accounts for 45 % of total industrial production, 40% of total exports and contributes very significantly to the GDP. Manufacturing segment within the MSME contributes to 7.09% of GDP.

The benefits of the MSMEs have created a special status and importance in the Five-Year Plans right from its inception. In recent years, the MSME sector has consistent higher growth rate compared to the overall industrial sector. Despite its commendable contribution to the country's economy, MSME Sector is not getting the required support and face numerous problems. This is a research paper which aims at developing a framework taking into account efficient demand marketing and innovation strategy performances.

Keywords: MSMEs, Demand Marketing, Innovation, Marketing Strategy, Innovation Strategy.

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THE INFLUENCE OF EUROPEAN FUNDS ON THE ROMANIAN HEALTH SYSTEM DEVELOPMENT: OPPORTUNITIES AND CHALLENGES

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ABSTRACT

The start point of the paper is to analyze the current context of the Romanian Health System and to identify the existing deficiencies in order to bring a structural change for the benefit of people and society. Hence, the paper highlights the causes that determined the actual state, the health priorities for the period 2014-2020 and how the sources of non-reimbursable financing will contribute to the reformation the Romanian social security system. According to the country specific situation found and the European Union recommendations (2017), the Romanian population is facing a precarious health status generated by the lack of education and responsibility, by a weak access to qualitative health and care services, an insufficient number of physicians and nurses and a lack of knowledge in accessing the necessary funds for modernization. Several strategic direction of priorities for the health sector for the period of 2014-2020 are: a) promote and support the reform of the national health system, b) increase the general contribution through sound solutions to expand the use of information and use better the communication technologies, c) create a sound infrastructure for research and development both in the public and private sectors, build more centers of excellence as part of existing and emerging health clusters, d) improve the programs to identify the risks and potential crises and create a sustainable management and adequate plans for prevention, enable responsibility, reliable engagement, adequate training, feedback operations for institutions conservation and people in need assistance. This may enhance the access to more qualitative emergency services, reduce the response time and improve the level of endowment. The innovative solutions should be considered and adopted as support investments: the use of renewable energy, the implementation of ICT platforms servicing both patients and administration, measures to implement higher qualitative services and access at European standards.

CIRCUMSTANCES

The European Union is keeping a keen eye on the way the health sector is developing especially in recent members countries where plenty of problems were identified and stipulated in the recent years' countries reports. According to the last one issued by the European Commission at the beginning of 2018, Romania registered dramatic performances for the most of the health indicators, proving substantial disparities compared to the European Union average. Some indicators, although below the

European average faced small and unsatisfactory increases: life expectancy at birth compared to the healthy life expectancy at age 65 that decreased by 2.2 to 3.1 years for men, respectively women (EHLEIS, 2014) during 2007-2011.

Romania occupies the last positions with regard at the medical needs satisfied: (12.8% of the population compared to 6.4% in the EU27 in 2012), caused mainly by the high costs of medical services and other demographic and socio-economic factors, such as: a) the socio-economic determinants, b) the environmental and occupational factors, c) the individual behavioral factors.

More than 1 out of 6 poor people are not able to cover their medical needs because of lack of jobs, while almost 40% of people with low incomes and chronic diseases do not use the health services (Channa and Faguet, 2016).

According to the European Health Consumer Index and Report (2013) Romania has the smallest financial allocation per capita for health being ranked the last country in Europe with regard the health care services consumption. The health expenditures, below the European average of 830 Euros PPP/capita (E.C., 2017), place Romania just ahead of Albania and the Republic of Macedonia. According to the EHCI Report, the Health Expenditure Efficiency Analysis, calculated by a formula correlating the EHCI score with the financial resources allocated, highlights the poor allocative efficiency in the Romanian health system and rank the country on the 31st/34th position according to the national statistics provided by the Ministry of European Funds (2017).

CHALLENGES

The deep analysis of the causes that led to the low access and quality of health and care services provided to patients describes the high of a structural reform inside the health system so that the medical system keep its doors open to all citizens, to those belonging to vulnerable groups too so that they can benefit of qualitative and cost-effective health services. The National Health Strategy 2014-2020 provides the general framework to identify and diminish the number of weaknesses and non-conformities existing in the health sector, to harmonize the system with the general strategic directions formulated under the European 2020 Strategy and the World Health Organization European Region. The E.U. seven flagship initiatives represent strategic documents issued to strengthen the connections between the countries necessities and the European Commission's recommendations and programming process of European funds for the period of 2014-2020 in the field of health. The general framework relates also to the health policies development during 2014-2020 and takes into account the reforming measures proposed in the "Functional Health Sector Analysis in Romania" conducted by the World Bank experts in order to reduce the existing inequalities, optimize the use of resources in all fields of the health sectors, increase the cost-effectiveness within the evidence-based medicine,

improve the administrative capacity and management quality at all levels. The National Health Strategy 2014-2020 has been conceived as a strong catalyst document designed to stimulate progress and development in the Romanian health system in the following priority areas: a) women and child health, b) major non-communicable diseases, c) communicable diseases, d) mental health, e), rare diseases, f) transfusion security provided through the national network (Bortman and Bortman, 2016). Other adverse events under-reported, like the nosocomial infections surveillance and the control in conjunction with the monitoring of the antibiotic use and the antibiotic resistance monitoring, constitute also strategic areas with a high potential impact on quality health services, efficiency of hospital services (The Government of Romania, 2014).

By analyzing the current context, the performance of the health system can also be appreciated by its direct dimensions: ability to respond to the needs of the beneficiary (responsiveness); equity and financial protection; efficiency and sustainability.

Unfortunately, when the primary health sector is underdeveloped, the health services are mostly provided in hospitals, with higher costs, more resources and energy used than in other countries. When the community services are almost invisible, the ambulatory care is provided in hospitals instead of clinics and proximity specialized services.

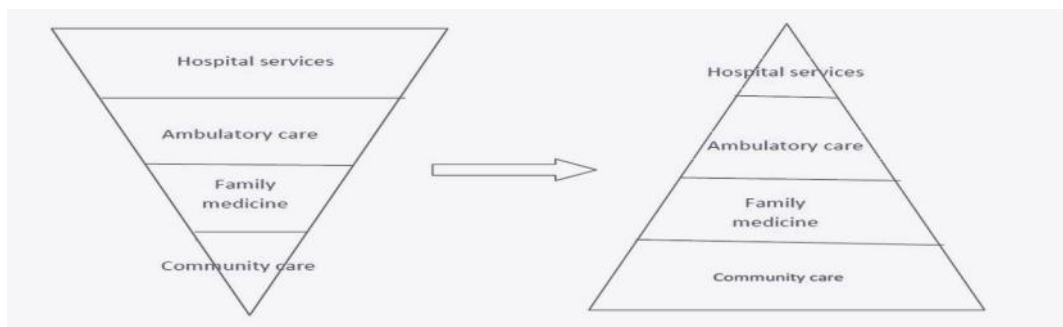


Figure 1. The health service consumption pyramid of anticipated developments in 2020 (Right) compared to 2014 (Left)

Source: personal approach

The 2014-2020 strategy and vision is to overturn this vicious service pyramid and gradually ensure a greater coverage of the health needs of the population through a more modern and performing, system-based services, through community assistance services, family and ambulatory care. As in other developed countries, the aforementioned services should become more efficient and performing, able to address the major needs for acute episodes of illness and continuously monitor the patients with chronic diseases: diabetes mellitus, hypertension arterial. The option for in-patients system usually implies higher costs. This should normally happen only for exceptional situations and complex diseases. This vision is fully supported by the new healthcare package, a package that sought

to apply evidence-based medicine and provide cost-effective services at the bottom of the system that can properly solve a health problem.

HOW EUROPEAN FUNDING INFLUENCES THE ROMANIAN HEALTH SYSTEM'S DEVELOPMENT

The financial allocation granted to Romania by the European Union under the Partnership Agreement (E.C., 2014) concentrates in the programming period 2014-2020 and identifies seven major intervention areas: a) infrastructure; b) health and social inclusion; c) energy and sustainable development; d) research, technological development and innovation; e) information and communication technologies; f) institutional capacity; g) education and training.

For the specific public health infrastructure, the following types of investment are considered to be granted, if adequate proposals are submitted for getting funding:

- *The Human Resources Development Operational Program* could finance - measures to enhance access to quality care and health care, the development of integrated health and social care services, especially outpatient services and the training of primary health care specialists, telemedicine support;
- *The Regional Operational Program (DLRC)* is open to finance investment measures for hospitals and other public health infrastructure;
- *The Competitiveness Development Operational Program* takes into consideration to fund the innovative development of the sector through telemedicine, digitization of the medical records and to sustain the medical research by using anonymous personal data.

With the allocated funding, the health sector can boost and adequately respond to current inequalities in the area, helping the poverty reduction and implementing the social inclusion measures.

The purpose of the funds allocated is clearly stated by the European Union to contribute to: a) develop the range of medical and health services in accordance with the beneficiaries' needs; b) diminish the infant and maternal mortality rates up to three times above the European averages; c) cut the health inequalities generated by unequal access to health services, their suboptimal integration and the lack of coverage with services to reach close positions to those of the community; d) reduce the disparities recorded by the health indicators and exist in the medical and care services distribution.

The profitable affairs in blossom, affiliated to specific territorial regions, pour through the local fees system, important revenues into the communities' accounts and influence positively the development of the local health system. However, the poorest areas, situated in the North-Eastern and the Southeastern zones, are in high suffering because of territorial precariousness, poverty degree of the vulnerable people, the high numbers in school abandon, functional analphabetism and

unemployment rates, the large communities of Roma people keeping specific habits outside the European rules (marriages at 12 years, forbidden vaccination) and seniors patients under low retirement allowances, if any.

The health system condition is also damaged by the negative influence of medical staffs' migration, the lack of logistical resources, decreasing allocations for staffs training, non-conformities in the working condition that call for stress, discontent, energy and enthusiasm loss. The success and profit obtaining is, directly and fundamentally, linked to the investments in the human capital qualification and the patients' education so that the access to the medical and care services be correct, ethic, legal, ethical and moral, according to the European standards. Priorities also go to those areas where the needs of funds, monitoring, control and assessment are high and oriented towards preventative education, young specialists training and accurate diagnosis, screening and emergency ranking required reducing losses in human lives and irrational spending of money.

CONCLUSION

Given the demographic structural development that show dramatic increases of aging population number and of chronic diseases outward, challenges are present and they require a proactive response to address the needs as they really are not as they look to be. Unbalances in the working area – employment/retired people ratio, the degree of education linked to the innovation products implementation, the healthy life expectancy and the quality of life of adults and teenagers, all require the development of a new capacity to manage the health sector on the profit basis, in order to provide high quality services, to reduce avoidable mortality and morbidity, to teach and coach the preventative education among the population. The suitable health strategies have to face the reality of the future as it comes, with the increased burdens of chronic diseases, with less and less funds to cover the losses caused by bad management, malpractice and lack of adequate norms, standards and regulations. To respond to the new and realistic needs, it is necessary to improve the technical and methodological framework, the medical, managerial and administrative knowledge and staffs' skills to identify the best opportunities to improve the logistics, the quality, the access to health services, including ICT solutions, the exchange of the best practices and innovative approaches. Such interventions must be related to investments in logistics and administrative capacity, in awareness, responsibility, engagement and competitiveness (E-health, telemedicine, research). Collaterally, to achieve the objectives proposed in the Strategy, all institutional actors – specialized staff of medical and health care services' providers, central and local health authorities and community entities have, all together, an essential duty to contribute, by their engaged and responsible dedication, to change the current healthcare paradigm with a better one, aligned to the European vision towards modernity,

progress and development and sustaining the Romanian society interests. The success depends, to a great extent, on the promotion of a collaborative culture, the pursuit of progress in the health of the population, the most efficient use of available resources, and the promotion of quality management.

Given that, a new health strategy is a broad initiative based not only on a limited sectoral approach but also on a cross-sectoral one and involve together the economy, the market and the society as one, a crucial role being played to model the new partnerships and the engaged, responsible and collaborative attitude at decision makers' level and inside the establishments' team-works in order to achieve the proposed results.

Keywords: Health, health system, medical services, grants, European standards.

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IMPROVING THE LEVEL OF COMPETENCIES FOR HEALTH PROFESSIONALS THROUGH FUNDING PROGRAMS – HCOP

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ABSTRACT

Within a deeper analysis of Romanian health services environment, where causes and effects have been already identified in previous years, a need to take mandatory and necessary interventions bounces in order to address imperious measures to prevent the propagation of the unwanted effects. The National Health Strategy 2014-2020 stipulates some concrete measures of intervention that are waited to be applied until 2020 to fulfill the strategic objectives assumed referring to: health and nutrition improvement, reduction of morbidity and mortality through communicable and non-communicable diseases, facilitate the access to qualitative and cost-effective health services, for all categories of people, develop the health infrastructure, increase the efficiency and communication in health and care sectors (Romania Gov, E-health, 2014). Such measures are presumed to better contribute to increase the life expectancy. Unfortunately, the results show that in Romania, the life expectancy six years below the EU average.

The medical and non-medical staffs working at all levels of the sector special require a dramatic need for improving their knowledge and training at international level, to be able to provide the most reliable and qualitative medical and palliative services. It is possible to finance such interventions from both the national public and accessing European funds, through grants' application. The Human Capital Operational Program is one of the European solutions put at the countries disposal to get financial allocation for medical staff training for medical and palliative services and infrastructure development.

The present paper provides some hints to improve the state of the health system by submitting projects to access non-reimbursable funds under the HCOP.

CONTEXT

The identification of the possibilities and opportunities to better figure out and improve the profile of the health determinants in Romania (socio-economic factors, behavioral factors, standards of life and working conditions and / or individual characteristics) represent the roots of the National Health Strategy objectives (2014-2020); they are mainly targeted to: a) ascertain the performance of the health care system, b) guarantee the quality of the public and private health services at the European

standard, c) promote the research to implement the innovative discoveries in the healthcare domain, providing training / refinement services for medical staff.

These have been established by taking into account the identified needs in comparative relation with the quality of the services delivered and the real needs for staff training.

The first steps have been oriented to improve the technical and methodological framework, staff knowledge and skills, by addressing initiatives to improve the quality and the access to health services. The ICT possible solutions, the adoption of the best international practices and innovative approaches have not been neglected as well.

All these ideas can become reality through the operational programs that European Union decided to fund in those countries able to prove their own realistic necessities. One of the operational programs that finance such investments is the 2014-2020 Human Capital Operational Program (HCOP), which has had a total allocation of around € 5 billion of which € 4.3 billion comes directly from European Union as own contribution.

The program aims at developing human resources by increasing access to a quality education and training system, stimulating employment, especially for young people, reducing poverty and social exclusion by facilitating access to social and health services, responding to Romania's intervention priorities in the field of employment, social inclusion and education.

Human Capital Operational Program (HCOP) 2014-2020 has a separate axis for financing the projects in the respective health field:

Table no. 1: Priority axes for financing the projects in the health sector

axis	Priority	Specific Objective	Specific objective definition
AP4 Social inclusion & combating poverty	4.8		Improving the skills of professionals in the medical sector
	4.9		Increasing the number of people benefiting from health and prevention programs, early screening, early diagnosis and treatment for major pathologies
	4.11		Increase the use / application of ICT solutions (e-health, telemedicine, etc.) in the provision of medical services

Source: Guidelines for accessing funding under the Human Capital Operational Program 2014-2020, April 2016

The financial allocation for this axis, broken down by region, is shown in the table below:

Table no. 2: Financial allocation for Axis priority 4

Axis Priority	Source	Category Region	Contribution UE (EUR)	Contribution RO (EUR)	Total funding
AP 4	SEF	Less developed region	889.970.370	157.053.595	1.047.023.965
	SEF	Developed region	50.535.114	12.633.779	63.168.893

Source: Guidelines for accessing funding under the Human Capital Operational Program 2014-2020, April 2016

Inside the POCU 2014-2020 program, the community-led local development (DLRC) has proposed a multisectoral approach (employment, inclusion, education, health, housing), integrated in the solving problems faced by marginalized communities. Correlations have been outlined to ensure the complementarities between ERDF / EAFRD infrastructure investments and soft ESF type measures (MEF, 2017).

The Community Development Local Development (DLRC) represents a significant territorial tool for development, proposed by the European Commission to facilitate; a) the combat against poverty and social exclusion, by stimulating the community involvement in local development, b) the creation of local partnership as Local Action Group to sustain the implementation of integrated local development strategies. The DLRC approach aims to mobilize and involve the disadvantaged communities and local establishments to take concrete steps towards their development in a smarter, more sustainable and more inclusive way, in strict accordance the Europe 2020 Strategy (MEF, 2017).

CHALLENGES

The challenges to submit proposals, to find the most appropriate programs and calls close connected to the goals had in mind for improvements, to identify best solutions to improve the health and care specialists' skills level, competencies and capabilities, are wide and numerous when accessing funds through the HCOP programs. The more accurate the search for coupled target and calls, the increased the number of proposals submitted, the higher the chances of success to be elected for funding and accessing the money is.

A keen attention has to be given to the meaning of the objective; they should concord with the deep meaning of the calls. Thus, to improve the skills of the health professionals involved in the medical services delivery refers to those specialists involved in the clinic activities and not in the administration ones. For the last ones, specialized programs and calls are developed and run. The applicability of projects can be directed to several areas such as: National Programs, Mental Health, Women and Child Health, Major Non-Communicable Diseases, Combating Diseases Associated with Childhood Aging and Mortality. Thus, it is desirable to improve the competence of professionals in the medical sector with integrated strategies and multidisciplinary competencies, indirectly for an increase in life expectancy, decrease mortality and morbidity, by integrated approaches. The fulfillment of the objectives of these projects will be accomplished by carrying out activities such as: development and implementation of residential professional training programs, workshops organization and participation in conferences, project management and information and promotion activities, observing the principles of equality chances and sustainable development. These projects will have a special impact on the specialists form the target group due to the increase of their

professional competencies in the domains of main health programs and with a positive effect on the public health system by facilitating the access of the people from the community to quality medical services.

In the long run, for example, the personal involved in the target group will be highly skilled in addressing patients with cardiovascular disease - according to statistical data such as about one million, children with autistic spectrum disorders, patients with various psychiatric pathology and prenatal diagnosis of congenital malformations and of genetic diseases. The main goal remains unchanged: reducing the infant mortality. The beneficial effect of acquiring new skills and increasing existing skills will be reflected not only in a more effective screening and early diagnosis of certain conditions but also in the possibility of directing patients to specialized interdisciplinary consultations and further investigations in an early stage of disease development, with beneficial effects in healing patients, reducing complications and the rate of deaths caused by them.

Projects must have an integrated approach, raising the level of innovation that is in line with the areas of the National Health Strategy 2014-2020, through continuing professional training with specialized medical staff.

The Program Human Capital F.PO.DGPECU 09.09, is linked to the involvement and aggregation of civil society, of local authorities and of all other relevant stakeholders acting in the medical field, in the difficult process of updating the existing programs and best practice guides, in line with the National Health Strategy 2014-2020 vision and requirements: the development of new services for local communities, the publication of best practices developing guides to sustain the long-term medical transparency, non-discrimination and right to treatment, the elaboration of new projects starting from the last results to sustain the continuity of good work and maintain patient, establishments and societal satisfaction. The contribution to the development and maintenance of specialized resources in hospitals will definitely increase the quality and effectiveness of health services delivery and recognize the results of investments in the human capital resources as an real added value to the entire society for the next generations' health and wellbeing.

Keywords: Health system, medical services, non-reimbursable funds, personal training in the health system

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CUSTOMER INFORMATION MANAGEMENT: CONTEMPORARY ISSUES OF PRIVACY AND TRUST

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ABSTRACT

Marketing evolution has shown that consumer information is vital for the profitability of modern organisations (Deighton, 1996; Graeff and Harmon, 2002, Acquisti, Brandimarte and Loewenstein, 2015). Through correct use of consumer information and the synthesis of big datasets, organisations are enabled to build customer loyalty while expanding their customer base through customised advertising, personalised products and individualised attention for customers (Bello-Orgaz et al. 2016; Dubey et al. 2016). Nevertheless, previous organisational practises revolved around the unconsented acquisition and use of customer information. The latter is an ethical matter currently tackled by data protection initiatives in the UK, Central Europe and the US (Midata and GDPR for UK and Central Europe; Cyber-Security Initiatives for US) in order to derive sustainable solutions. Imperative to the process of sustainable development in regard to customer information management practises is the understanding of how customers perceive privacy as well as what factors can alleviate disclosure concerns through reciprocal information exchanges and the instilment of trust. Therefore, deeper understanding of how customer information is collected as well as how individuals perceive privacy that ultimately leads to engaging in or abstaining from information divulgence, is key.

When it comes to the ways consumer data can be collected, organisations are faced with two types of data, transactional data and non-transactional data. Even though non-transactional data is more difficult to be obtained, its use provides insightful information on lifestyle and psychographic characteristics of consumers. Through correct utilisation, this allows organisations to both satisfy the growing demand of consumers for more individualised attention by enhancing new product development processes while also informing existing product refinement procedures (Robertshaw and Marr, 2005).

Interestingly, part of the marketing literature specialises on the examination of the effectiveness of different methods of data-capture. Even though organisations can acquire customer information through interviews, questionnaires or even focus groups, online data-capturing surveys are considered to be one of the most efficient and effective data-accumulation techniques (Long et al., 1999). This method was also found to be more effective in terms of information disclosure by individuals compared to any other off-line method (Hanna et al., 2005). Because of this, more recent papers focused on factors that enhance the efficiency and effectiveness of online data-capturing

surveys. In particular, academics experiment with question sequence effects (Moon, 2000; Acquisti, John and Lowenstein, 2012) capitalisation on comparative nature of individuals (Acquisti, John and Lowenstein, 2012) as well as examinations regarding reciprocal information exchanges and their effects towards voluntary disclosures (Zimmer et al., 2010).

In an attempt to further explore the trending issue of consumer privacy protection by understanding what influences individuals to voluntarily disclose private information, this research is interested in reviewing relevant literature for the reflection and demonstration of the importance that customer information has towards modern commercial organisations. Through this review a conceptual framework is sought to be formed that summarises the factors that influence voluntary information disclosures of consumers to commercial organisations. By understanding the information disclosure process of individuals and the factors that influence it, this research offers a blueprint on managerial implications and how organisations can capitalise on consumer behaviour in order to increase the effectiveness and efficiency of their data-capturing processes.

Keywords: Customer Data, Disclosure, Information, Customer Information Management, Privacy, Data Protection Initiatives

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OPEN INNOVATION PROCESSES AND CROSS FERTILIZATION; THE CASE OF IT AND GARMENT

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ABSTRACT

Our paper shows how views on innovation processes have evolved over recent years and how they have moved from closed innovation processes to open innovation theories. Although innovation has probably never been a closed process, it is more common now to see firms adhere to a vision of open innovation and to be more open to sources of ideas and innovation in their environment in order to be more competitive (Barney, 1991, Davenport and Prusak 1998; Newlands, 2003). As knowledge has become more and more important for competition, firms are opening to new ways of accessing this knowledge, including looking for knowledge outside their own organization, which leads to new forms of management of innovation (Pandley and Dutta, 2015), which can be referred to as Open Innovation. In this context, networks and relational proximity play an important role (Tremblay, 2012).

Various industrial sectors are thus now moving in this direction, and opening to the activities and ideas of other firms, other sectors. Our research investigated this process by looking at new developments arising from open innovation and cross-fertilization.

The IT sector for example has been solicited more and more by various firms from various sectors. For example, and this is our sector of interest, it has moved into new creative sectors, including the wellness garment sector in particular, to develop new niches for production. Indeed after the difficulties and crisis of 2005 (reduction of trade barriers, elimination of quotas in garment industry, etc.), the garment sector has moved partly to new niches (infotainment, and e-health garments, for example) and IT persons as well as designers have taken a new place in the production chain to revitalize the garment industry.

METHODOLOGY

This paper is based on a series of interviews with industrial organizations, professional associations and garment companies which were conducted during the period from 2005 to 2016, and also on two case studies in the technology and e-health sector, which we realized in 2016. The interviews were all analyzed on the basis of a thematic analysis and our results result from this thematic analysis as well as a documentary analysis on open innovation case studies, which inspired us for our own work.

RESULTS

To this day, there has not been much research on cross-fertilization between industrial sectors and our research thus opens new paths to research in the adaptation of industry to economic and technological change, and particularly cross-fertilization between IT and garment. The research highlights the difficulties and challenges in sharing knowledge across sectors, and highlights some conditions for this sharing of knowledge in networks or open innovation projects to function and be successful in terms of innovation (products, processes or other forms of innovation).

The research can be useful in eventually helping firms to develop better processes of innovation, to understand the challenges and conditions for successful open innovation. It can also help governments to design efficient policies for the development of new forms of innovation, based on the cooperation between IT sector and other sectors, for example in e-health or others. Our case studies as well as interviews with industrial and professional organizations help understand the challenges and difficulties related to the adaptation to this economic shift towards open innovation and the conditions and challenges for a better cooperation and collaboration for innovation between IT and creative sectors in particular, but other industrial sectors as well.

Keyword: Innovation, Open innovation, Cross-Fertilization, IT, Garment, Fashion, Cluster, Creativity, Innovation Management,

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FARMERS' WILLINGNESS TO PAY FOR COLLECTIVE BRANDS

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ABSTRACT

The issue of collective brands has been addressed by several researchers. Many researchers explore the consumers' perception, valuation and intention to buy local or regional food products such as Fernández-Ferrín et al (2018), Picha et al (2017), Bruwer and Johnson (2010). Hayes et al (2003) highlight the importance of local names held by farmers for themselves and for consumers, while Seek (2012) point out the importance of geographical indications for consumers welfare as well as for incentives a better quality to be provided.

Some others focus on economic and developmental dimensions, such as Mandrinos et al (2015) who highlight the significance of local brands for exports, Gatrell, Reid and Steiger (2018) emphasize the importance of local and regional designations for regional development, while Ilbery et al (2005) indicate the link between product quality and specific places which are founded on a long tradition of locally specific products as well as traditional production methods, with a strong territorial development focus. Given the dependence between local foods and tourism, Hashimoto and Telfer (2006) note the importance of local foods for the development of tourism, while Ohe et al (2013) found the complimentary relationship between local brands of farm products and rural tourism.

The European regions are characterized by large variety of ecosystems which, interacting with the human factor, lead plenty of local production conditions and subsequently plethora of geographic indications to be generated (Tieskens et al, 2017; Ilbery et al 2005). Thus, farmers face wide variety of opportunities to use local or regional brand names in their marketing activities, the exploitation of which prerequisites the farmers' willingness to properly develop collective brands. Because there is not publication to our knowledge focusing on this issue, the main goal of the present study is to analyze the willingness of farm business owners to pay for collective brand development.

We assume utility maximization behavior of the farm business owners who decide to undertake or not the cost of the development of a collective brand and identify the key factors that enhance the willingness to pay to participate on it. More specifically, the farmers' willingness to pay is examined in conjunction with their expectation regarding the benefits of their participation in the brand (usefulness), the needs for external support they perceive that they have, while it is also examined the

impact of the marketing channel the farmers choose to sell their products, as well as the satisfaction regarding their experiences with product selling and marketers.

We are based on primary data collected from 539 fruit producers in North Greece (Central, East, West Macedonia, Epirus) to conduct an independence test (Pearson chi-square) of the willingness to pay with each of the factors that have been selected examining the consistency between them. It is found that twelve factors positively or negatively impact the farm business owners' willingness to pay including the expectation for product differentiation, easier product selling and higher prices, the needs for financial support and consultancy, as well as the low level of satisfaction with product prices and buyers. The willingness to pay depends also on the marketing channel the farmers choose and the size of the farm business. In addition to these factors, it has been also found a dependence of the willingness to pay on farmers' perception that the products they sell arrive at consumers' side branded, the farmers' intention to commit with the brand quality requirements and their intention to privately use the brand. Some propositions for practitioners and for future research are given.

Keywords: geographical; perception; usefulness; satisfaction; support; farm business; characteristics; quality; commitment

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THE DOUBLE STANDARD UNDER ROMANIAN LENS: FOOD FRAUD, AN ATTACK TO FOOD SAFETY!

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ABSTRACT

Nowadays, under the ICT wide development, peoples' lives change dramatically. People face new situations, their expectation change under the virtual knowledge that influences at once emotions, behaviors, purchasing styles and consumption, pushing people towards new experiences to make out the real from fake. The fakes are now part of the general manipulation and sustain the corporations' fraud, especially in all fields of the distribution chains: production, sales, consumption, legality, protection. Food-related frauds are not entirely correctly perceived by both public and policy-makers. The new terminology produces confusion when related to food, safety, security, standards, regulations, assessments. The clarification of the terminology used in this field requires immediate intervention at both European Union and state members' level. The present paper clarifies the most important aspect with respect to food frauds, double standards, and food safety legality.

Keywords: food fraud, food safety, double standard, European legislation

CONTEXT

As a general valid definition, food fraud represent the intentional substitution of products or parts of the products manifested by dilution or addition of different raw materials to produce or sell the goods for another quality than they are, with the purpose to reduce the production costs or obtain illegal profits. Such situations happen often as The European Union practice doesn't provide a standardized definition of food fraud, so that the legal base remains at a standstill.

The consumption of unsafe food produces real damages to the population health - food allergies, latent intoxication, accumulation of unhealthy substances in the body, because of the presence of prohibited substances that occur accidentally through food contamination, because of negligence and immorality of producers or insufficient involvement and action to legally prevent and combat such situations by the competent authorities. The frauds have enormous effects and implications for individuals and society: unjustified gains and unpaid taxes for producers and traders, decrease of national productions when bad quality imports are brought into the commercial network, loss of jobs for local producers, epidemics and burden on the national and individuals' health budget because of unhealthy products' consumption.

CIRCUMSTANCES

The current legislation regarding the consumers' protection assimilates the food fraud to "unfair commercial practice" both at national and European level. Food fraud came to the general public and European officials' attention with the commercialization of; beef marketed substituting the beef, frozen lasagna containing bacteria, substitutes of extra virgin olive oil or truffle oil with lower oils (corn oil) or even mineral oils, with low quality wines sold under famous internationally recognized brand namely (Tohani, Sarba, Murfatlar, Jidvei).

The most common types of food frauds are: a) *replacement* (partial or total ingredient's substitution with product of lower economic value); b) *disguise* (mask the low quality of a product or ingredient by false labels and information); c) *dilution* (mix the raw material ingredient with water or other low value liquids); d) counterfeiting (copying registered trademarks to obtain profits); e) incorrect labeling, dating, weighing; f) falsify labels indicating other origins, composition, prices, expiration date; g) unauthorized exaggeration (additives, dietary supplements with mention of supposed miraculous healing powers); h) grey market (trading products from unauthorized sources under unauthorized conditions, illegally labeled and illegally traded to generate tax evasion and food safety risk (these situations are encountered in unauthorized areas, markets, fairs, low-priced trade, indicating that they have been stolen from incumbent producers or falsified in all the above-mentioned forms); i) fraudulent immoral practices (fruits and vegetables treated with *imazalil*, meat derived from animals treated with antibiotics, steroids and anti-inflammatory particularly dangerous for human consumption, as well as the use of meat from cloned animals).

CONCLUSIONS

In accordance with Article 357 of the New Penal Code, "forgery or substitution of food or other products represents offenses against public health" and should be treated by legal authorities accordingly.

The criminal law does not expressly provide for special and transitory provisions relating to the offense, the proceeds of the offense and the aggravating circumstances. This is a worrying element of public health, and, implicitly, I believe for national security. Therefore it is imperative that the entire European legislative package be as soon as possible transposed into the national legislation on sanitary and veterinary food law measures that will encompass the entire agro-food chain throughout the traceability of official control, starting from the European Union's "fork in the national fork". Since last year, at the initiative of the EU Commissioner, the European Commission and Parliament started to work on a specific EU legislative package on food fraud, and tackling with it to identify ways to detect the frauds throughout the whole agro-food chain.

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ISRAEL'S INNOVATION ECOSYSTEM, THE HISTORICAL ROLE OF GOVERNMENT ASSISTANCE

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ABSTRACT

In a recent study comparing local and national innovation and entrepreneurial ecosystems in Germany, the UK and Israel, the role of government support was highlighted as having a significant impact on the resilience and robustness of entrepreneurial entities worldwide – and in Israel specifically. (Dee *et al.*, 2013)

Referred to as the 'Start-up Nation,' Israel's entrepreneurial success is a topic of discussion and reflection worldwide. This paper outlines the history and evolution of Israeli government programs from bi-national marketing agreements to full blown government funded incubators and accelerators. It reflects on how the government changed funding mechanisms and programing to adapt to changing populations and target audiences. In addition, the 'debate' of directed public verses private backing is identified as significantly affecting the growth of clusters and ecosystems.

The final discussion identifies how local and national entities aim to keep pace with the ever changing needs of their customer base as well as keeping abreast of the increased speed of innovation. This includes the introduction of public/private support agencies intended to be more flexible and agile to meet the continuously shifting enterprise, cluster and ecosystem needs.

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RISK ATTITUDES AND INTERNATIONAL MIGRATION

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ABSTRACT

Evidence suggests that people make decisions with bounded rationality. Kahneman and Tversky (1979, 1992) presented the framework of prospect theory which explains how people make decisions under risk and uncertainty. However, even nowadays when the issue of rationality has received considerable critical attention, rationality is a continuing view in trying to explain human decisions to migrate. Previous studies, representing migration decisions by expected utility theory, characterized risk preferences by one parameter – concavity of a utility function. Such representation of risk role limits the explanation of behaviour. The prospect theory of behavioural economics can play an important role in addressing the issue of migration, incorporating such parameters as risk preference and loss aversion into the analysis. There is evidence that such incorporation could be a valuable instrument (Czaika, 2015). Therefore, the aim of this research is to identify the impact of behavioural economic factors on international migration decision.

Most of neoclassical and new migration theories are directly linked to standard economic models with the assumption of rationality and value maximization. The first tries which incorporated the risk variable into migration decision explanation were more under theoretical level (e.g. Anam *et al.*, 2008) or speculative framework (e.g. Heitmueller, 2002, 2005) or based on other approaches (Anam *et al.*, 2008; De Jong *et al.*, 1983; Heitmueller, 2002, 2005), i.e. risk level could be described as an adjective variable and its role for migration decision was not proved empirically. Some authors (e.g. Baláž and Williams, 2011; Nowotny, 2014) estimated risk under gambles conditions and linked it with migration decision. But the question is whether or not such an evaluation is significant and describes the migration decision well. Initial research measuring the effects of risk attitudes with empirical proof towards migration began at the end of the first decade of 21st century (Jaeger *et al.*, 2007) with more research continuing to nowadays (Akgüç *et al.*, 2016; Dustmann *et al.*, 2015; Gibson and McKenzie, 2009, 2011; Williams and Baláž, 2014). It shows the necessity to further investigate the role of risk attitudes as a determinant of migration.

The empirical research was based on the case of Lithuanian students. Framed methodology enabled the measurement of the prospect theory parameters in the context of migration decision, i.e. quantification of risk parameter by using eliciting method and laboratory simulation asking students to respond to hypothetical questions related with socio-economic situation in Lithuania.

The role of incorporating international migration risk attitudes (risk preference and loss aversion) in the analysis of international migration decision was tested empirically, enabling to reveal the impact of migration factors on international migration decision more precisely. The mean value of risk preference equals to 0.659 and loss aversion – 4.325. It corresponds to the shape of value function of preferences under prospect theory.

Risk preference has a positive slope, indicating that the lower is the risk preference, the lower is the likelihood of international migration decision. Such behaviour can be explained by people's risk-averse preferences leading to decisions of smaller outcome variance and preference of certainty of a lower gain than the chance of a larger gain, i.e. they prefer safe choices to risky ones.

In contrast, loss aversion parameter has a negative slope, revealing that the higher is the loss aversion, the lower is the likelihood of international migration decision. Loss aversion points out that people are more sensitive to losses than gains. It can be seen from the value function as well, i.e. the function is steeper for losses than it is for gains. The degree of likelihood to emigrate can be explained of people's willingness to try to minimize losses because “/.../ losses loom larger than gains” (Kahneman and Tversky, 1979, p. 279).

The reduction of assumptions on standard economics models allows to achieve more reality reflecting explanation of humans' behaviour. Ordinal logistic regression models show a great extent improvement of the overall model and the pseudo R-Square value for the strength of association between current economic and social situation and international migration risk attitudes quantified by risk preference and loss aversion. Pseudo R-Square value size effect increased almost twice and model fitting characteristics as well. The odds ratios demonstrate that students who evaluate current economic and social situation as (1) completely unsatisfied, (2) unsatisfied and (3) somewhat unsatisfied were respectively 6.1, 2.1 and 1.8 times more likely to consider emigration decision than those who was satisfied with the current economic and social country's situation.

The results of this research show that the constructed instrument based on prospect theory is appropriate in the migration context and allows to measure migration decision. This is an important issue for policy makers to better understand migration reasons and those seeking to forecast and prevent/regulate migration flows.

Keywords: international migration, decision making, behavioural economics, risk attitudes, migration risk attitudes.

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